



*With the Compliments
of the
Medical Officer.*



CITY OF BRADFORD.


ANNUAL REPORT

OF

MEDICAL OFFICER.

1921.

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CONTENTS.

	PAGE
PREFACE	4
PART I.	5
A. Population	5
B. Births	6
C. Deaths	6
Comparative Table	13
PART II. SANITARY CIRCUMSTANCES OF BRADFORD	14
A. Water Supply	14
B. Drainage and Sewerage	14
C. Closet Accommodation and Scavenging	14
D. Sanitary Inspection of District	16
E. Workshop and Shop Inspection	19
F. Premises, etc. Controlled by Bye-Laws or Regulations	24
G. Other Sanitary Work	26
PART III. FOOD	30
A. Milk Supply	30
B. Slaughterhouses and Meat Inspection.. .. .	34
C. Other Articles of Food	36
D. Sale of Food and Drugs Acts	36
PART IV. PREVALENCE AND CONTROL OF DISEASE	36
A. Infectious Diseases	36
B. Tuberculosis	44
C. Venereal Diseases	56
D. Other Diseases	60
PART V. MATERNITY AND CHILD WELFARE	63
A. Infant Mortality in 1921	63
B. Maternity	72
C. Infancy	77
D. Early Childhood	82
E. Visitation and other work	84
PART VI. BACTERIOLOGICAL AND PATHOLOGICAL WORK	85
PART VII. HOSPITAL ACCOMMODATION	89
A. Municipal General Hospital	89
B. Infectious Diseases Hospitals	100
C. Special Hospital Accommodation	106
PART VIII. HOUSING	107
PART IX. MISCELLANEOUS	111
A. Ambulance Work and Disinfection	111
B. Public Mortuary and Crematorium	111
APPENDIX TABLES	113
REPORT OF SCHOOL MEDICAL OFFICER	119

PREFACE.

The following report on the health of the City has been compiled along the lines laid down in the Memorandum of the Ministry of Health.

The chief vital statistics for the year 1921 were :—

Estimated population	..	291,100		
Birth rate	..	..	19·57	per 1,000 of population
Death rate	..	..	13·72	per 1,000 „ „
Zymotic death rate	..	..	0·66	per 1,000 „ „
Tuberculous death rate	..	..	1·16	per 1,000 „ „
Infantile Mortality rate	..	..	109	per 1,000 births

These rates, though not so good as those for 1920, show a marked improvement over the average of recent years.

JOHN J. BUCHAN,

Medical Officer of Health.

TOWN HALL, BRADFORD,

1st July, 1922.

I.—VITAL STATISTICS.

Area and Population. The City of Bradford has an area of 22,880 acres, and at the census of 1921 had a population of 285,979. This census was taken on the night of the 19th June, when considerable numbers were absent from the city, after allowing for this the Registrar General estimates the population for the middle of 1921 as 291,100.

DISTRIBUTION AND DENSITY OF POPULATION.

Wards					Estimated Population, 1921	Area of Wards in Acres	Persons per Acre
Allerton	..	..	..	..	11898	2864	4.2
Bolton	..	..	..	..	8938	1001	8.9
Bradford Moor	..	..	..	..	23965	680	35.2
East	..	..	..	..	16634	385	43.2
East Bowling	..	..	..	..	17814	565	31.5
Eccleshill	..	..	..	..	10634	1221	8.7
Exchange	..	..	..	..	2920	118	24.7
Great Horton	..	..	..	..	24013	1289	18.6
Heaton	..	..	..	..	17915	883	20.3
Idle	..	..	..	..	7915	1693	4.7
Listerhills	..	..	..	..	15777	321	49.1
Little Horton	..	..	..	..	16306	425	38.4
Manningham	..	..	..	..	23208	449	51.7
North	..	..	..	..	12054	353	34.1
North Bierley	East	..	..	..	12105	2419	5.0
North Bierley	West	..	..	..	10734	1836	5.8
South	..	..	..	..	14427	303	47.0
Thornton	..	..	..	..	5541	2251	2.5
Tong	..	..	..	..	7498	2659	2.8
West	..	..	..	..	9780	162	60.4
West Bowling	..	..	..	..	21204	1003	21.1
City	..	..	..	..	291100	22880	12.8

The average density of population varies from 2.5 persons per acre in Thornton Ward to 60.4 in the West Ward.

Births. The number of births registered in the 52 weeks ending 31st December, 1921, was 5,696, of which 2,967 were males, and 2,729 females. This gives a birth-rate for the year of 19·57 per 1,000, a decrease of 0·95 per 1,000 from last year.

AVERAGE QUINQUENNIAL BIRTH-RATES FROM 1871.

1871-75	..	39·0	1891-95	..	27·5	1911-15	..	19·0
1876-80	..	35·6	1896-1900	..	25·1	1916-20	..	15·4
1881-85	..	31·1	1901-05	..	22·6	1921	..	19·6
1886-90	..	29·8	1906-10	..	20·1			

Illegitimacy. Of the 5,696 births registered 355 or 6·2 per cent. were illegitimate. This rate is 0·2 per cent. higher than in 1920.

Deaths. The total deaths occurring in Bradford in 1921 was 3,967, after making additions and deductions of persons dying away from their place of residence the number becomes 3,994. The corrected death-rate is therefore 13·72 per 1,000 or 0·41 per 1,000 more than in 1920.

AVERAGE QUINQUENNIAL DEATH-RATES FROM 1871.

1871-75	..	25·9	1891-95	..	19·7	1911-15	..	15·5
1876-80	..	22·3	1896-1900	..	17·9	1916-20	..	16·0
1881-85	..	19·9	1901-05	..	16·3	1921	..	13·7
1886-90	..	20·9	1906-10	..	15·1			

The death-rate among the male population in 1921 was 14·96, and among the female population 12·67 per 1,000.

The birth and death rates in the various wards of the city are set out in the table on page 7.

BIRTH AND DEATH RATES IN EACH WARD.

Ward.	Number.		Rates per 1000.	
	Births.	Deaths.	Births.	Deaths.
Allerton	169	117	14.20	9.83
Bolton	131	103	14.65	11.52
Bradford Moor ..	477	313	19.90	13.06
East	375	220	22.54	13.23
East Bowling ..	402	262	22.51	14.71
Eccleshill	190	143	17.87	13.45
Exchange	51	54	17.47	18.49
Great Horton ..	408	274	16.99	11.41
Heaton	297	211	16.58	11.78
Idle	133	84	16.80	10.61
Listerhills	310	254	19.65	16.09
Little Horton ..	313	247	19.20	15.15
Manningham	481	339	20.73	14.61
North	293	174	24.31	14.44
North Bierley East ..	207	164	17.10	13.55
North Bierley West	162	158	15.09	14.72
South	395	231	27.38	16.02
Thornton	83	75	14.98	13.54
Tong	159	95	21.21	12.67
West	240	184	24.54	18.82
West Bowling ..	420	292	19.81	13.77
City	5696	3994	19.57	13.72

Mortality at Different Ages. The following Table shows the total deaths in each age group during the past six years.

NUMBER OF DEATHS IN EACH YEAR AT DIFFERENT AGE PERIODS.

Age.	1916	1917	1918	1919	1920	1921
Under 1 year	581	513	477	454	563	619
1— 2 years	123	159	181	111	61	149
2— 5 ,,	106	156	294	144	81	81
5—15 ,,	145	126	252	172	121	103
15—25 ,,	163	158	290	215	159	151
25—45 ,,	574	515	761	621	513	479
45—65 ,,	1157	1104	1294	1326	1127	1056
over 65 ,,	1487	1354	1420	1644	1289	1356

The infantile mortality rate for 1921 was 109 per 1,000 births as against 93 for 1920. The mortality between one and sixty-five years was 7·4 per 1,000, and over sixty-five years 87·9 per 1,000.

Public Institutions. The accommodation in hospitals and asylums for the sick and mentally afflicted in Bradford amounts to more than 2,500 beds. Adding those in workhouses the total number in public institutions in the city probably amounts to more than 1·2 per cent. of the population or about 1 in 80.

VOLUNTARY HOSPITALS, 1921.

Hospital.	Number of beds.	Character of cases.	Cases admitted to hospital.	Cases treated in outdoor departments.
Bradford Royal Infirmary ..	210	General	3083	10278*
Bradford Children's Hospital	74	Children	1363	3973
Royal Eye and Ear Hospital	72	Eye & Ear	1835	9371
Totals	356	—	6281	23622

* Exclusive of cases in the venereal and orthopædic clinics and dental cases.

At the out-patient department of the Bradford Royal Infirmary 6,127 persons were treated as out-patients, and 4,153 as casualty cases, and 209 as dental cases. The number of attendances made by out-patients was 29,693, and by casualty cases 21,791. At the venereal clinic there were 44,664 attendances, and at the orthopædic department 10,540 treatments were given. The average daily attendance at the departments of the Bradford Royal Infirmary is more than 300.

The total number of patients admitted to municipal hospitals in 1921 was 7,525, the nature of the cases is given elsewhere in this report in dealing with each hospital. On the 31st December, 1921, there were 91 patients maintained in institutions for the mentally defective.

At the end of the year the number of persons, including lunatics, in receipt of relief in the Bradford Union was: Institutional 1,306, and Domiciliary 6,497, equal to 33·5 per 1,000 of the population; the corresponding figures for North Bierley Union, of which part of the city forms part, was Institutional 476, and Domiciliary 1,955, equal to 18·2 per 1,000 of population.

PROPORTION PER 1,000 OF POPULATION IN RECEIPT OF RELIEF.

	Indoor.	Outdoor.	Total Chargeable
England and Wales ..	5·9	29·0	34·9
Bradford Union	5·6	27·9	33·5
North Bierley Union ..	3·5	14·7	18·2

The number of deaths in public institutions is given on the tables on pages 10 and 11.

DEATHS IN PUBLIC INSTITUTIONS.

Name of Institution.	1919	1920	1921
Bradford Union	468	90	71
North Bierley Union	61	59	50
Giggleswick Union	10	4	2
Barnsley Union	37	—	—
Other Poor Law Institutions	2	2	4
Menston Asylum	55	42	51
Storthes Hall Asylum	9	2	1
Scalebor Park Asylum	4	1	1
Other Asylums	2	3	—
Royal Infirmary	218	246	162
Children's Hospital	37	47	67
Eye and Ear Hospital	8	5	10
St. Catherine's Home	18	4	9
Other Voluntary Hospitals	11	6	12
St. Luke's Hospital	38	511	666
Leeds Road Hospital	18	57	57
Bierley Hall Hospital	24	25	24
Odsal Sanatorium	27	34	36
City Infants' Hospital	32	22	25
Municipal Maternity Home	6	10	14
Special Hospital	—	2	1
Westwood Certified Institution	2	—	1
North Bierley Joint Hospital	20	5	4
Calverley Joint Hospital	5	—	1
Thornton Joint Hospital	4	—	—
Other Institutions	3	6	8
Total	1119	1183	1277

It will be noted that in 1921, 127 deaths, or 3.2 per cent. of the total deaths occurred in Poor Law Hospitals; 53 deaths or 1.3 per cent. in Lunatic Asylums; 260 deaths, or 6.5 per cent., in Voluntary Hospitals; and 829 deaths, or 20.8 per cent., in Municipal Hospitals.

The age incidence of deaths in Public Institutions is shown in the following Table :—

	Poor Law Hospitals	Lunatic Asylums	Voluntary Hospitals	Municipal Hospitals	Other Institutions	Total	Per cent. of Deaths at each age
Under 1	—	—	41	137	—	178	28.9
1— 2	—	—	19	28	—	47	31.6
2— 5	1	—	7	15	—	23	28.4
5—15	—	—	24	27	—	51	49.5
15—25	3	3	21	50	1	78	51.7
25—45	11	19	51	125	4	210	43.8
45—65	35	23	76	202	1	337	31.9
65 and over	77	8	21	245	2	353	26.0
Total	127	53	260	829	8	1277	32.0

Certification of Deaths. 3,586 deaths, or 89.8 per cent., were certified by medical practitioners, and 372 or 9.3 per cent., by the coroner after inquest, and 36, or 0.9 per cent., were uncertified. The table on the following page shows the causes of death as found at the inquests held.

NUMBER OF INQUESTS HELD, AND VERDICTS RETURNED DURING
THE YEAR ENDED 31ST DECEMBER, 1921.

CAUSE OF DEATH.	Wilful Murder.	Manslaughter.	Temporary Insanity.	Intemperance.	Anthrax.	Accidents.	Natural and Un-known Causes.	Open Verdicts.	Totals.	Remarks.	
Violence	There were also 36 cases where, after enquiries were made, it was found that Inquests were unnecessary.	
Burns and Scalds	18	...	...	18		
Railways	4	...	...	4		
Motor Vehicles	16	...	...	16		
Other Conveyances	1	...	...	1		
Machinery	4	...	...	4		
Falls	33	...	...	33		
Suffocation	2	...	...	2		
Drowning	1	...	2	3		
Poisoning	2	2	...	3	7		
Intemperance	4	...	...	...	...	4		
Other Causes	1	...	...	...	...	6	...	6	13
SUICIDES—											
Drowning	5	...	...	...	...	1	6		
Hanging	7	...	...	...	...	...	7		
Poisoning	12	...	...	...	...	3	15		
Other Means	4	...	...	...	...	...	4		
Natural and Unknown Causes	235	...	235		
TOTALS	1	...	28	4	2	87	235	15	372		

TABLE A.

VITAL STATISTICS OF BRADFORD FROM 1890.

Year	Population	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Mortality Rate
1890	214,634	29·1	20·1	2·38	169
1891	216,808	28·7	22·0	2·34	181
1892	217,805	27·4	18·0	1·59	155
1893	219,008	27·9	20·9	3·20	198
1894	220,218	27·1	17·0	1·69	144
1895	221,435	26·6	19·8	2·57	203
1896	222,658	26·7	16·8	1·59	143
1897	223,895	25·4	17·4	2·24	179
1898	225,133	24·8	17·5	2·20	184
1899	226,373	24·3	18·4	2·43	181
1900	278,634	24·1	17·1	1·43	141
1901	279,969	23·0	16·7	1·86	168
1902	280,833	23·3	15·7	1·38	138
1903	281,799	23·4	16·2	1·32	148
1904	282,568	22·2	17·4	2·43	167
1905	283,441	21·3	15·3	1·45	144
1906	284,314	20·9	16·2	1·97	152
1907	285,189	20·1	14·7	0·91	124
1908	286,071	21·0	15·7	1·46	143
1909	286,954	19·2	14·6	0·68	116
1910	287,839	19·1	14·3	1·26	127
1911	288,723	19·0	15·0	1·60	140
1912	289,618	19·3	14·5	0·82	98
1913	290,540	19·6	15·1	1·10	128
1914	291,482	19·6	15·7	1·22	122
1915	*280,737	17·4	16·9	1·22	123
1916	*271,105	16·67	15·99	0·61	118
1917	*266,338	13·06	15·34	0·81	132
1918	*259,707	13·30	19·13	1·07	123
1919	*282,714	13·40	16·27	0·31	113
1920	293,979	20·52	13·31	0·42	93
1921	291,100	19·57	13·72	0·66	109

* Civil population.

II.—SANITARY CIRCUMSTANCES OF BRADFORD.

(A) *Water*.—Of the several public sources of supply the only one which exhibits any plumbo-solvency is that from Thornton Moor reservoir, where the water is treated by the addition of $1\frac{1}{2}$ to $2\frac{1}{2}$ grains of calcium carbonate per gallon and subsequent filtration through slow sand filters. The following summary of the results of analysis of samples taken from houses in the area of distribution shows that the plumbo-solvency of the water as distributed is low.

THORNTON MOOR WATER.

Average Results of Analyses of Water as distributed.

	Grains per Gallon.			
	Lead.	Lead taken up in 24 hours.	Alkalinity.	Hardness.
39 samples before 8 a.m. ..	0.0523	0.0454	0.304	4.335
42 samples after 1 p.m. ..	0.0313	0.073	—	—

There were at the end of 1921 87 farms and 364 houses in isolated localities in the city, not connected with the Corporation mains. The number of notices served to secure a proper water supply (Section 62) was 18, affecting 111 houses, nearly all the complaints arose from defects in the service pipe.

(B) *Drainage and Sewerage*.—There are 183 farms and 806 houses not connected with Corporation sewers, these are drained as follows :—Into cesspools, 128 farms and 149 houses ; into water courses, 3 farms and 122 houses ; on grass land, 13 farms and 324 houses ; in two of these methods or otherwise 39 farms and 211 houses.

(C) *Closet Accommodation and Scavenging*. During the year 1,296 new water closets were provided in the conversion of 1,028 privies, and the ashpits in connection were replaced by dry ashpits or dustbins. In 1,108 these were provided for dwelling houses, in 158 for factories or workshops, and in 30 other premises.

ESTIMATE OF SANITARY ACCOMMODATION AT THE END OF 1921.

(i.) Dwelling-houses.

	No. of Houses	Water Closets	Waste Water Closets	Privies
WATER CLOSETS.				
More than one sanitary convenience to each house ..	5170	8391	530	630
One to each house	34303	34303	—	—
Less than one to each house ..	17094	8940	—	—
WASTE WATER CLOSETS.				
One to each house	7282	—	7282	—
Less than one to each house ..	250	—	125	—
PRIVIES.				
One to each house	5034	—	—	5034
Less than one to each house ..	4920	—	—	3038
Totals	74053	51634	7937	8702

SUMMARY.

	Number.	Percentage
Houses with water closets	56,567	76·38
Houses with waste water closets ..	7,532	10·18
Houses with privies only	9,954	13·44

(ii.) Business and other Premises.

	No. of Premises	Water Closets	Waste Water Closets	Privies
Factories, workshops, and other business premises ..	4361	11081	—	298
Places of worship, schools, clubs, public institutions, &c.	472	3013	—	235
Totals	4833	14094	—	533

(iii.) Totals.

Number of water closets	65,728
Number of waste water closets ..	7,937
Number of privies	9,235
	82,900
Number of wet ashpits	5,321
Number of dry ashpits	30,635
Number of dust bins	9,477
	45,433

The number of times each ashpit was emptied during the year was on the average 9. The dust bins are emptied each week.

During 1921 880 personal applications were made to the Sanitary Office for the cleansing of ashpits as against 1,135 the previous year. Three hundred and thirty applications were received through the post, as against 975, and 2,960 were made by the Sanitary Inspectors, as against 5,363 the previous year, the total being 5,050, as against 7,473 for the year 1920.

(D) *Sanitary Inspection of District.*—The number of tests to drains and sanitary fittings made by the Sanitary Inspectors during the year was 2,355, of which 1,111 were volatile tests with 299 positive results, 1,126 were coloured water tests with 203 positive results, and 118 smoke tests with 44 positive results. In 438 of the houses tested infectious disease was present, in 312 cases diphtheria with 22 positive results, in 19 enteric fever with 2 positive results, and in 107 other diseases with 5 positive results.

In 74 cases the system of drainage was such as to render impracticable the application of a test.

The drainage of 67 blocks of property, comprising 330 houses and other premises, were dealt with under Section 41 of the Public Health Act, 1875, as against 267 houses in 1920. All these cases were dealt with by the City Surveyor after being referred to him by the Health Committee.

Seventy-eight downspouts have been disconnected from drains and sewers, as against 122 last year. Accounts have been received and passed for payment for the disconnection of 27 downspouts at 23 houses, as against 61 downspouts at 59 houses last year. The total cost of the work involved was £100 15s. 6d., or an average of 74s. 8d. for each downspout. The total amount payable by the Corporation was £50 7s. 4d.

The District Sanitary Inspectors have made 123,748 inspections and visits for the investigation and suppression of nuisances. The total number of nuisances reported was 12,083. The following statement shows the nature and amount of work performed by the Inspectors during the year, together with the figures for the 5 preceding years for the purpose of comparison.

PARTICULARS OF WORK DONE, 1916-1921.

	No. of Cases.					
	1916	1917	1918	1919	1920	1921
<i>Drainage and Sanitary Arrangements—</i>						
Choked drains cleansed	1483	2030	1575	1593	1627	1559
Drains amended	882	624	596	615	725	684
Drains reconstructed	265	113	114	113	199	383
Extra drains provided	30	22	2	24	59	115
Cellars drained	28	20	29	36	12	18
Drains underneath houses abolished	34	12	16	2	7	19
Drainage systems intercepted from sewer	12	6	—	3	6	6
Open drain inlets trapped	11	6	—	8	2	8
Waste pipes trapped	43	41	36	34	32	35
Waste pipes disconnected	59	27	24	14	16	34
Rain water pipes disconnected ..	377	91	65	97	122	78
Rain water conductors repaired or renewed	3806	2994	3871	3632	2627	1820
House sinks repaired or renewed ..	65	112	75	103	93	147
New house sinks provided	115	396	272	304	193	193
Water closet pedestals renewed ..	34	11	7	9	18	45
Water closets and flushing apparatus repaired	326	833	723	734	483	567
Water closets cleansed	246	392	233	193	223	145
Water closet apartments cleansed and limewashed	881	1919	1244	1250	522	753
Water closet apartments properly lighted and ventilated	33	61	32	1	45	2
Soil pipes repaired or renewed ..	69	46	35	66	53	38
Soil pipes (indoor) abolished ..	6	—	1	1	2	1
Urinals cleansed, amended, or screened	34	42	47	22	23	26
Urinals remodelled	1	1	—	3	2	8
New urinals provided	1	1	2	1	—	4
<i>Privies and Ashpits—</i>						
Privy structures abolished	20	21	—	9	43	146
Deposit of slops in ashpits prohibited	95	42	85	29	28	36
General repairs executed	997	1459	1074	1330	1135	1307
Privy apartments cleansed and limewashed	270	629	393	269	185	202
Dust bins provided or renewed ..	432	284	310	375	573	678
<i>Dwelling-houses, Etc.—</i>						
Dampness excluded	155	132	150	132	391	387
Roofs repaired	536	369	680	574	943	883
General repairs executed	635	462	611	535	755	936
Houses or parts cleansed and limewashed	538	308	284	203	257	334
Ventilation improved	32	33	41	34	55	89
Overcrowding abated	53	19	9	16	9	10
Cellar areas cleansed	94	65	39	29	46	35
Caravans removed	19	33	—	2	35	10
Number of houses reported for provision of privies	—	—	4	—	11	—
Number of houses reported for provision of water closets	—	—	—	—	752	2130

	No. of Cases.					
	1916	1917	1918	1919	1920	1921
<i>Courts, Backyards, Stable Yards, Etc.—</i>						
Paving repaired in yards and passages	319	329	107	83	134	176
Yards and passages newly paved ..	13	65	1	3	27	11
Yards cleansed.. .. .	673	411	254	200	242	130
Passages cleansed and limewashed ..	206	380	186	151	199	175
<i>Keeping of Animals, Etc.—</i>						
Improper keeping of swine prohibited	2	1	19	9	11	20
Improper keeping of fowls, etc., prohibited	40	24	9	65	103	136
Accumulations of offensive matter removed	290	139	125	159	207	192
Accumulations of manure removed	155	45	23	51	75	89
Manure pits repaired	10	6	4	1	9	5
Manure pits provided.. .. .	2	—	—	—	1	6
<i>Miscellaneous Nuisances—</i>						
Dangerous places made secure ..	248	327	296	272	272	214
Effluvium nuisances abated	15	14	23	7	31	46
Other unclassified nuisances abated	21	6	22	10	53	113
<i>Special Inspections—</i>						
Graveyards	439	148	101	67	50	59
Offensive trade premises	530	343	298	206	243	209
Schools inspected	1085	1002	681	723	635	553
Zymotic diseases investigated and subsequent visits	2574	1492	1506	2169	4406	3697
Complaints specially investigated ..	1333	1438	1535	2093	2779	2818

During the year 1,500 complaints as to nuisances were received as against 1,392 in 1920.

The number of statutory notices served for the abatement of nuisances was 4,440, as against 5,271 last year. The number of preliminary notices served for dangerous places to be made secure was 44, as against 60 last year; there were 214 of these places dealt with as against 272 last year.

In default of compliance with notices served, 33 cases were heard before the City Magistrates, and fines and costs amounting in the aggregate to £13 12s. were inflicted. In 7 cases Orders were made by the Court. Five of these were subsequently complied with, and in the remaining 2 cases the defendant was fined £1 in each case for failing to obey the Order of the Court. Twenty-four cases were withdrawn, the work having been carried out either before the hearing of the case, or during the time the case had been adjourned. One case was dismissed, and in the remaining case a fine was imposed of £5 including costs.

The number of visits made to burial grounds was 59, as against 50 last year. In accordance with licenses issued by the Home Secretary reinterments were supervised at 3 burial grounds, Greenhill Wesleyan (20 bodies), Bowling Cemetery (one body), and Scholemoor Cemetery (one body). No irregularities were observed.

No new public urinals were erected. The public urinal in East Parade was abolished.

(E) Workshop and Shop Inspection, &c.

(1) FACTORY AND WORKSHOP ACTS, 1901.

There are 3 inspectors engaged in this work, 2 wholly and 1 partly. They made 4,681 visits of inspection to workshops, and 995 to bakehouses during the year. In addition the sanitary inspectors made 927 visits of inspection to workshops.

The decrease (425) in the number of workshops this year is due chiefly to the closing of a large number of burling and mending premises, on the other hand 72 factory and wholesale bakehouses have become subject to local inspection under 1921 Order of the Minister of Health.

In 29 cases the requirements of Sec. 107 (1) (a) were found not observed, but these were remedied after warning ; in 698 cases the lists under Sec. 107 (1) (c) were late, and in one case when the list was not received a month after the time the employer was proceeded against and fined.

The number of sanitary and other defects found was 1,146 more than half of which arose from dirty and foul conditions. Limewashing of workshops was required in 255 cases, and of bakehouses in 188 cases, additional light or ventilation in 35 cases, additional closet accommodation in 19 cases, while foul or defective waterclosets numbered 218. In one case a workshop was found overcrowded, and in 7 dangerous places were found. In 48 workshops gas stoves were provided without proper means of carrying off the fumes.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

I.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
<p> FACTORIES (Including Factory Laundries) </p>	327	30	—
<p> WORKSHOPS (Including Workshop Laundries) </p>	6094	150	—
<p> WORKPLACES (Other than Outworkers' premises in- cluded in part 3 of this Report) </p>	182	46	—
TOTALS	6603	226	—

II.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness	315	315	...	...
Want of ventilation	37	37	...	...
Overcrowding	1	1	...	...
Other nuisances	556	534	...	...
Sanitary accommodation {	insufficient	63	62	...
	unsuitable or defective	284	282	...
	not separate for sexes	35	27	..
<i>Offences under the Factory and Workshop Act—</i>				
Illegal occupation of underground bake-houses (S. 101)	3	3	...	..
Breach of special sanitary requirements for bakehouses (Ss. 97 to 100) ...	188	188	...	...
TOTALS	1482	1449	...	...

III.—HOMEWORK.

OUTWORKERS' LIST, SECTION 107.										
NATURE OF WORK.	List received from Employers.								Prosecutions. Failing to send in Lists.	
	Sending twice in the year.				Sending once in the year.					
	Outworkers.		Outworkers.		Outworkers.		Outworkers.			
	Lists.	Con-tractors.	Lists.	Con-tractors.	Lists.	Con-tractors.	Lists.	Con-tractors.		
										Work-men.
WEARING APPAREL.— (1) Making, &c. ... (2) Cleansing and Washing ... Furniture and Upholstery ... Curtains and Furniture Hangings ... Electro-plate ... Umbrellas ... Baskets ... Weaving, &c. ... Sack Repairs ... Locks, Latches and Keys ...	290 2 14 2 2 4 ... 110 2 2	308 6 59 ... 6 6 ... 106	409 ... 25 4 4 11 2 112 2 2	29 50	19 54	22 86	306 ... 15 1 1 2 ... 370 1 ...	1		
TOTALS ...	428	491	571	80	73	109	698	1	1	

IV.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year.								Number.
Workshops	...	...	...	...	...	...	...	2505
,, Bakehouses			...	...	...	...	...	326
Total								2831
Factory and Wholesale Bakehouses on Register								72

V.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failing to affix Abstract of the Factory and Workshop Acts (S. 133, 1901)	101
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Act, but not under the Factory and Work- shop Act (S. 5, 1901)	Notified by H.M. Inspectors
	Reports (of action taken) sent to H.M. Inspector
Other Reports to H.M. Inspectors	7
Underground Bakehouses (S. 101) :—	
In use at the end of the year	37
Total	267

(2) SHOP ACT, 1912 TO 1921.

The total number of shops on the register is 7,409, as compared with 7,263 last year. The number of visits and investigations made to shops where young persons were employed was 734. In 124 shops the employers had failed to exhibit the notice referring to specific provisions of the Act. The employer was cautioned in each case. One young person was found to be employed in a shop after having been previously employed on the same day in a factory or workshop for the full number of hours permitted by the Factory and Workshop Act. The employer was warned that a repetition of the offence would involve prosecution.

Special visits were made to 1,037 shops where female assistants were employed, and it was found that seats were provided in each case.

In 110 cases no notice was fixed specifying the Closing Day. Thirty-nine shops were found open and the occupiers selling non-exempted articles, and 23 persons were found to be hawking on the day fixed for the weekly half holiday. Proceedings were instituted against 4 shopkeepers and 3 hawkers, the remainder were cautioned. Two hundred and eleven shops were found open, and the occupiers not displaying the Mixed Trades notices, specifying the exempted trades for which they were remaining open after the closing hour on the weekly half holiday. All these offenders were warned that a repetition of the offence would involve them in legal proceedings.

In 19 cases shop assistants were employed after 1.30 p.m. on the day of their weekly half holiday. In 3 cases the employers were prosecuted, and the remainder cautioned. In 400 cases the employer had failed to provide the prescribed form relating to their assistants' weekly half holiday. All the employers were cautioned except one, who was prosecuted.

In 14 cases it was found assistants were not having the correct time for meals as prescribed by the Act. The offenders were warned.

Closing Orders.—As a result of night visits specially made after the closing hour in connection with Closing Orders affecting various classes of shops, particularly Butchers', Hay, Straw, and Corn Merchants', and Jewellers', 7 shops were found open in contravention to the Orders, and the offenders were cautioned. Eighty-nine occupiers were found not to be displaying official copies of the Closing Order, in each case the offender was warned.

The Council, on the petition of more than two-thirds of the shopkeepers on the register, made a new closing order affecting Retail Fish, Fruit, and Game Dealers. This order awaits confirmation by the Secretary of State.

Under the Shops (Early Closing) Act, 1920, 73 shops were found to be open after the closing hour. Five of the offenders were prosecuted, and the remainder warned. Seven persons were found to be hawking in the streets after the closing hour, and 2 of these were prosecuted, and the remainder warned. In the majority of these cases the offence was committed after the closing hour on a Sunday night.

PROSECUTIONS.

The following is a summary of prosecutions taken under Shops Act, 1912 to 1921 :—

Nature of Offence.	No. of Cases.	Penalties.			Costs.		
		£	s.	d.	£	s.	d.
Breach of Shops (Early Closing) Act	7	3	10	0	0	5	0
Failing to observe Weekly Half Holiday Orders	7	3	0	0	—		
Failing to affix Shop Assistants' Prescribed Form	1	0	10	0	—		
Failing to allow Assistants a Weekly Half Holiday ..	9	0	10	0	1	15	0
<i>Factory and Workshop Act, 1901.</i>							
Failing to send in list of Out-workers	1	—			0	8	0
<i>Cinematograph Act, 1909.</i>							
Failing to observe Condition No. 13	1	2	0	0	0	5	0
Total	26	9	10	0	2	13	0

(3) RAG FLOCK ACT, 1911, ETC.

The Senior Workshops Inspector obtained and submitted to the City Analyst for analysis 19 samples of Flock. The whole of these samples were found to conform to the standard prescribed by the Regulations made under the above Act. One sample contained the maximum amount of Chlorine, as Soluble Chlorides.

(F) *Premises Etc., Controlled by Bye-Laws or Regulations.*

(1) COMMON LODGING HOUSES.

At the end of the year there were 18 Registered Common Lodging Houses in the City, comprising 107 sleeping rooms, and affording accommodation for 849 males, 20 females, and 24 couples, a total of 917 persons nightly, this being the same number as last year.

Application was made and granted for the transfer of the registry of the Keeper of the Common Lodging House, 22, Sackville Street.

The total number of lodgers frequenting these places was 267,342, as against 305,949 for the previous year, this being a decrease of 39,607, or approximately 108 persons nightly.

The following table shows the proportion of single men, single women, young persons, and couples frequenting these houses :—

ADULTS		Couples	8 to 21 years		Under 8 years	
Males	Females		Males	Females	Males	Females
244684	8161	6450	186	336	798	259

The whole of the houses have been limewashed and cleansed in accordance with the provisions of Section 83 of the Public Health Act, 1875, and the number of visits of inspection made was 1,009.

Seven night inspections were made, but no case of overcrowding was found.

One special Sunday visit was made, but no contravention was found.

It will be observed that few night inspections have been carried out during the year, for the reason that these houses have not been occupied to the extent they are registered for. The total yearly accommodation for which they are registered is 334,705 persons. By comparing this figure with the actual number of persons frequenting the houses it will be seen that an average of 185 beds were unoccupied nightly.

(2) CANAL BOATS.

The number of canal boats inspected within the City Boundary was 129.

The following is a detailed list of the breaches of the Canal Boats Acts and Regulations found to exist :—3 boats required caulking, 1 boat used as a dwelling without being registered, 1 boat no notification of

change of master, 1 boat certificate was not legible, 1 boat fore cabin occupied by more persons than mentioned on register, 1 boat was not properly marked, 1 boat fore cabin required painting. Total number of breaches 9. Seven notices have been served for these, and in every case the defect or contravention was remedied and certified by a Canal Boat Inspector.

No case of Infectious Disease was notified during the year.

At present there are no boats registered with this Authority.

Police Court proceedings pending at the end of last year for a breach of the Regulations resulted in the Master of a boat being fined £1 or an alternative of 7 days imprisonment.

(3) **OFFENSIVE TRADES, Etc.**

The number of offensive trades in the City is 339, of which 283 are Fish Fryers ; 85 of the Fish Fryers are subject to annual renewal. The number of visits of inspection made during the year was to Fish Fryers 890, and to other offensive trades 209. Four persons, all Fish Fryers, were prosecuted for breaches of the Offensive Trades Bye-laws.

(4) **SCHOOLS.**

The number of visits for the sanitary inspection of schools in 1921 was 553. Several important sanitary improvements were made in the schools affecting amongst others Hanson, Grange, and Carlton Street Secondary Schools.

There still exists, however, in many schools, trough closets of an antiquated type, which require replacing with a more modern convenience.

(G.) *Other Sanitary Work.*

(1) **SMOKE INSPECTION.**

There are 351 large factory chimneys in the City, which range in height from 45 to 245 feet, and from 1 to 130 square feet in area. The average effective height of all the chimneys is 99 feet.

There are 690 steam boilers in the City of the following types :—Lancashire, 521 ; Cornish, 67 ; Vertical, 34 ; Babcock and Wilcox, 29 ; Yorkshire, 13 ; Marine, 7 ; Semi-loco, 5 ; Cochran, 4 ; Stirling, 2 ; and Eggend, 8. The total normal calculated evaporation in a 10-hour day of these boilers amounted to 53,732,500 lbs. of water.

The number of boilers in use in the various industries in the City is :—Spinning, 146 ; Dyeing, 127 ; Woolcombing, 100 ; Weaving, 74 ; Engineering, 17 ; Ironworks, 22 ; Laundries, 10 ; Railways, 14 ; Breweries, Saw Mills, Chemical Works, and Collieries, each 9 ; Soap, Food production, each 6 ; Stone trade, 10 ; Brickworks, 5 ; Printing, 3 ; Tanners, Rubber works, each 2 ; Sewage and Destructor Works, 4 ; Gas Works, 16 ; Electricity Works, 27 ; Baths and Schools, 36 ; and sundry trades, 27.

The methods of stoking are as follows :—By hand, 329 ; by sprinklers, 298 (169 Proctor, 77 Bennis, 46 Triumph, 6 Whitaker) ; by cokers, 63 (29 Hodgkinson, 3 Bennis, 31 B. & W. chaingrate).

There are 265 boilers working with natural draught, 326 with assisted (forced) draught, 70 with balanced (forced or induced) draught, and 29 solely with induced draught.

There are engaged in the city during the daytime 173 engineers in charge of boiler plants, and 557 stokers, while 42 stokers carry out the duties of both stoker and engineer. Many of the engineers are in charge of 2 or more plants.

An estimate made of the coal consumption during the year shows 546,006 tons fired by sprinkling stokers, 269,852 tons by coking stokers, and 216,322 by hand, a total of 1,032,180 tons. To this has to be added 74,810 tons used in the manufacture of iron and steel, 153,010 tons used in the manufacture of gas and coke, and 6,000 tons in chemical and other furnaces. The total, therefore, used for industrial purposes last year was 1,266,000. The amount used for household purposes as estimated by the Bradford Chamber of Trades is 340,000, a grand total of 1,606,000 tons. In times of normal trade the coal consumption would be much higher.

Seventeen or 5 per cent. of the chimneys are at work in conjunction with the coking type of stoker, and these chimneys are practically gritless and smokeless. These chimneys take the gases from no less

than 26 per cent. of the total quantity of coal burnt upon boiler grates. All machine stokers, if overworked or not intelligently operated will produce black smoke. Some sprinkling stokers in the City are burning as much as 45 lbs. of coal per hour per square foot of grate area, and maintaining a clean chimney.

Additional plant and boilers are very often put down with little thought to the capacity of the chimney. There is a chimney in the City originally built for a steam plant of 250 horse-power which has been gradually increased until now the chimney is taking the gases from a plant of 2,700 horse-power. In Bradford the Lancashire boiler predominates, in 61 per cent. of these boilers machine stokers are fitted.

During the year under review 1,404 recorded and unrecorded smoke observations were made by the Smoke Inspector. Fourteen notices of prosecution were served for offences under the Smoke Clauses of the Local Act relating to smoke nuisance. In six cases fines and costs were inflicted, amounting to £10, in the remaining cases cautions and warning notices were issued.

With regard to the prosecutions against stokers it should be noted that in many cases since the proceedings were taken the chimneys have been almost smokeless without any alteration to the plant.

During the coal strike there was a considerable number of installations for the consumption of oil fuel, but owing to the badly designed and constructed atomizers and the lack of knowledge of oil fuel consumption, more than half of these were working more or less on the border line of smoke nuisance.

The use of electricity for power purposes continues to increase, and to meet this demand the Corporation are installing four cross tuber marine boilers. Under normal conditions these are capable of doing the work of twenty-six large high pressure Lancashire boilers. They have 44,000 square feet of heating surface and will evaporate 3,120,000 lbs. of water in a twelve-hour day with a consumption of 216 tons of coal in practically gritless and smokeless furnaces.

Last year the Corporation Gas Works carbonised 153,010 tons of coal, which produced 89,457 tons of coke ; 1,894,230 cubic feet of gas ; 62,737 gallons of benzol ; 22,732 tons of ammoniacal liquor ; and 8,605 tons of tar. The Corporation is the largest steam user and coal consumer in the City.

(2) THE RATS AND MICE (DESTRUCTION) ACT, 1919.

The following is a summary of the work performed during the year by the Corporation Rat Catcher :—Complaints dealt with, 142 ; poison baits set, 1,851 ; baits taken, 1,013 ; rats caught alive, 915 ; caught dead, 138 ; total rats caught, 1,053.

In the case of small cottage property the services of the Rat Catcher are given gratuitously, whilst in respect to business premises and large houses a fixed charge is made approximating to the bare cost of the Rat Catcher's time, together with the cost of the baits taken. In this way a sum equal to about 32% of the wages paid to him has been recovered during the year, as against 20% last year.

All rats caught are destroyed at the Hammerton Street Destructor Works.

(3) CINEMAS AND OTHER PLACES OF PUBLIC ENTERTAINMENT.

An inspection of all the Cinemas and other places of public entertainment has been made throughout the City, and at several places which did not conform to the requirements as laid down in the circular of the Ministry of Health improvements were effected. During the year under review the sanitary accommodation at one Cinema House has been entirely re-modelled, new water closets, urinals, and a modern system of ventilation has been installed.

At one of the Theatres in the City additional water closet accommodation has been provided for the artistes, 3 foul urinals have been abolished, and new ones substituted with automatic flushing apparatus, the drainage system reconstructed, additional water closet accommodation provided for the public (both sexes), and improved ventilation provided for the dressing rooms. Several other minor improvements have been carried out at various places of entertainment in the City.

Periodical inspection is carried out by the District Inspectors, and 120 recorded inspections have been made during the year.

Eighty-nine visits were made to Cinema Houses in the City respecting the exclusion of children under the age of 10 years owing to the prevalence of Infectious Disease. In 4 cases it was found that the restrictions had not been strictly observed, which resulted in 1 prosecution, and in the remaining 3 cases the Licensees were warned.

III.—FOOD.

(A) MILK SUPPLY.

In 1921 the amount of milk consumed in the City amounted probably to about 14,500 gallons daily, of which about 8,600 were produced within the City, and about 5,900 outside.

Dairy Farms and Cowsheds.—The total number of farms within the city area is 420, of which 400 produce milk. At these 400 dairy farms there are 772 cowsheds, with an average number of 4,664 cows in milk.

The veterinary inspector (Mr. C. Pitts, M.R.C.V.S.), has made in 1921, 2,085 visits to dairy farms, and inspected on 4,507 occasions cowsheds in the City. At these inspections he examined 24,730 dairy cattle and took 1,484 samples of milk and 227 samples of cattle sputa. He found 53 dairy animals, equivalent to 1·3 per cent. on the average number of animals, suffering from open tuberculosis, in 17 of which the udder was affected, while in the remaining 36 the udder was free. All the animals suffering from tuberculosis of the udder were sold to dealers and lost sight of, and 32 of the others were similarly disposed of, the remaining four being destroyed. Some of the animals lost sight of were yielding two and three gallons of infected milk per day. The need for further powers of control of these animals is urgent.

Of the 1,484 samples of milk taken by the veterinary inspector, 128 contained pus, 23 contained tubercle bacilli, and the rest were negative. Of the 227 specimens of dairy cattle sputa, 56 contained tubercle bacilli, the remainder being negative.

The veterinary inspector made visits to six farms outside the city boundary as a result of reports from the City Bacteriologist of mixed milk containing tubercle bacilli coming into the city from these farms. At these inspections 126 dairy cows were examined and 504 samples of milk taken, five cows were found giving milk containing tubercle bacilli, and at two farms suspected cows had been sold just prior to the visit of the inspector. From these six farms 252 gallons of mixed infected milk was coming into Bradford daily. The problem is therefore a very serious one.

Two persons were registered as cowkeepers during the year. The number of notices served upon cowkeepers was 136, of which 60 had reference to the need for cleansing and limewashing the cowshed. All these were complied with. In addition to the defects the subject of notice, many defects were pointed out by the veterinary inspector at the time of his inspection.

Milk Shops, Dairies, and Purveyors of Milk. There were at the end of the year 277 vendors of milk registered and residing within the City.

These registered milk vendors may be classified as follows :—

Cowkeepers and retailers	121
Retailers only (in the streets or from their homes) ..	122
Milkshops (including dairies, confectioners, small grocers, and other shops)	34

The number of visits made to these premises was 490, and generally the premises were found in a fairly satisfactory state.

In addition to these 277 vendors residing in the City 45 dairymen came into the City from surrounding districts to sell milk by retail.

The milk supply produced within the City is supplemented from 194 sources outside the boundary. From these sources the milk arrives in Bradford in 120 cases by rail, in 18 by tramways, and in 56 by road. The total amount of milk produced outside the City boundary and consumed within is estimated to be about 5,900 gallons daily.

During the year 34 new milk purveyors were registered.

Chemical Examination of Milk. During the year 550 samples of milk were analysed and the results are shewn in tabular form on the following page.

These show that 2·18% of the samples gave an analysis under 3·0% of fat, and 74·1% over 3·5% of fat, whilst 3·4% of these samples gave an analysis under 8·5% of non-fatty solids, and 75·8% over 8·9% of non-fatty solids. The total number either below 3·0% of fat or 8·5% of non-fatty solids was 32, or 5·8% of the samples.

RESULTS OF MILK ANALYSIS, 1921.

Per cent.	Fat																	Total						
	Und'r 2.5	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0		4.1	4.2	4.3	4.4	4.5	4.6 over
Under 7.5	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
7.5	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7.9	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9.6 and over	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals...	—	1	—	2	6	4	8	11	13	26	30	41	46	59	52	41	42	30	25	30	14	14	55	550

Non-Fatty Solids.

Milk and Cream Regulations 1912 and 1917. The number of samples of milk examined for preservatives was 550, and 1 of cream. They were all free from preservatives. In 8 instances samples of Preserved Cream were submitted for examination to verify or otherwise the accuracy of the statement given on the label, and all were found correct. In all these samples of preserved cream the fat percentage was above 35.

The following table gives the particulars of analysis of these samples:—

ANALYSIS OF PRESERVED CREAM.

No. of Sample.	Percentage of Boric Acid indicated on the Statutory label.	Percentage of Boric Acid found in Cream.	Percentage of fat in the Cream.	Where purchased.
320	0·4	0·40	46·54	Fruiterers' Shop.
321	0·4	0·31	56·01	Café.
322	0·4	0·28	49·07	Café.
328	0·4	0·29	49·40	Dairy.
387	0·4	0·36	48·24	Café.
388	0·4	0·382	48·67	Dairy.
459	0·4	0·248	51·66	Dairy.
843	0·4	0·318	47·26	Café.

Municipal Milk Depot.—At the Municipal Milk Depot in 1921 122,394 gallons of milk were got from 11 sources, all of which was obtained from outside the City. The amount of milk sold was 106,640 gallons, and the amount of butter and cheese made 9,315 lbs. Butter and cheese was only made when the milk could not be disposed of as such.

The institutions supplied with the milk were as follows:—

Hospitals and other Institutions under the Health

Committee	31,010 gallons
Institutions of the Education Committee	24,712 gallons
Maternity and Child Welfare Scheme	17,170 gallons
Other Institutions and Persons	33,748 gallons
Total	106,640 gallons

(B) SLAUGHTERHOUSES AND MEAT INSPECTION.

The number of private slaughterhouses within the City is 42, and 1 knacker's yard. Fourteen of these are subject to annual license, including the knacker's yard, and 28 are registered slaughterhouses.

The number of visits made to private slaughterhouses in 1921 was 1,730, and to potted meat and sausage premises 3,032. These places were generally satisfactory. There was no seizure of diseased or unsound meat during the year. One case of Swine Fever and two cases of Anthrax were reported to the police.

The number of carcasses condemned wholly or partly was 1,215. These were as follows :—

CARCASES WHOLLY OR PARTLY CONDEMNED AND DESTROYED.

	Wholly	Partly	Total
Cows	82	342	424
Heifers	11	120	131
Bullocks	5	39	44
Calves	89	24	113
Sheep	70	54	124
Pigs	148	231	379
Totals	405	810	1215

The total weight of meat in lbs. found unsound or unwholesome was as follows :—Beef, 53,589 ; Mutton, 4,699 ; Pork, 25,586 ; Veal, 5,181 ; and Offals, 18,788 ; a total of 107,843 lbs. or more than 48 tons.

In addition the following unclassified food stuffs were dealt with as being unwholesome and destroyed :—220 Ox Tongues, 108 lbs. Corned Beef, 15 Beasts Livers, 147 Ox Tails, 17 sets of Offal, 93 lbs. Frozen Mutton, 320 lbs. Frozen Beef.

The total number of animals slaughtered at the Public Abattoirs was as follows :—

	St. James's	Bolton Lane	Total
Beasts ..	12,976	1,009	13,985
Sheep ..	27,570	2,052	29,622
Lambs ..	7,303	978	8,281
Calves ..	6,229	50	6,279
Pigs ..	15,443	1,002	16,445
Totals ..	69,521	5,091	74 612

Of these animals 398 beasts and 177 pigs were found tuberculous.

The extent and incidence of the disease is shown in the following table :—

	Beasts		Pigs	
	No.	Per cent.	No.	Per cent.
Wholly destroyed ..	48	0·34	64	0·39
Partially destroyed ..	38	0·28	40	0·24
Internal organs only destroyed	312	2·23	73	0·44
Totals	398	2·85	117	1·07

I am indebted to Mr. Frank Matthewman, Markets Superintendent, for the particulars as to the total number of animals slaughtered at the Public Abattoirs.

Auctions and Fairs were visited by the Veterinary Inspector on 63 occasions, and inspections made on the following animals:—2,985 Cattle for store and slaughtering purposes, 1,717 Dairy Cows, 5,100 Sheep, 235 Calves, 832 Pigs, making a total of 10,869 animals inspected.

(C) OTHER ARTICLES OF FOOD.

The total weight in lbs. of other articles found unsound or unwholesome during the year was as follows :—Rabbits, 20,999 ; Game and Poultry, 605 ; Vegetables, 45,141 ; Fruit, 27,747 ; Wet Fish, 12,685 ; Dry Fish, 9,423 ; Shell Fish, 20,440 ; and Sundries, 40 ; a total of 137,080 lbs., or more than 61 tons. All these articles were surrendered and destroyed. The rabbits so dealt with numbered 10,005, 4,389 being British, and 5,616 Colonial, the improvement in the quality of the latter was noticeable.

The number of applications for inspection of these food stuffs made during 1921 was 371, 11 being written and 360 verbal. The number of inspections made to shops doing this trade was 841.

The number of visits made to fish curing premises was 360, to fried fish shops 890, and to ice cream premises 923.

There were 13 prosecutions undertaken during the year under sec. 54 of the local Act of 1910, relating to the manufacture and sale of ice cream, in 12 cases fines were inflicted ranging from 10s. to £5, the remaining case was dismissed.

(D) SALE OF FOOD AND DRUGS ACTS.

The number of samples of food and drugs taken under these Acts and submitted to the Public Analyst for analysis by the Food and Drugs Inspector was 881. Of these 839 were certified as genuine, and 42 as adulterated or doubtful. In 16 cases vendors were summoned and penalties and costs amounting to £87 16s. 6d. were inflicted. The nature of the articles sampled were as follows :—Condensed Milk, 4 ; Preserved Cream, 8 ; Butter, 39 ; Cheese, 1 ; Margarine, 36 ; Lard, 35 ; Rice, 5 ; Pepper, 8 ; Mustard, 6 ; Custard Powder, 6 ; Coffee, 13 ; Cocoa, 9 ; and Corn Flour, 10 ; the foregoing all being genuine ; and Milk, 550 ; Jam, 26 ; Drugs, 96 ; and other articles, 29 ; of which 27, 7, 6, and 2 respectively were found adulterated or doubtful.

IV.—PREVALENCE AND CONTROL OF DISEASE.**(A) INFECTIOUS DISEASES.**

The total deaths in Bradford from enteric fever, smallpox, measles, scarlet fever, whooping cough, diphtheria, and diarrhoea and enteritis under 2 years, known for convenience as Zymotic diseases in 1921 was 192, giving a mortality rate for this group of 0·66 per 1,000.

AVERAGE QUINQUENNIAL ZYMOTIC DEATH-RATES FROM 1871.

1871-75 .. 5.5	1891-95 .. 2.3	1911-15 .. 1.2
1876-80 .. 3.1	1896-1900.. 2.0	1916-20 .. 0.42
1881-85 .. 2.1	1901-05 .. 1.7	1921 .. 0.66
1886-90 .. 2.3	1906-10 .. 1.3	

The Zymotic death-rate for the first quarter was 0.48; for the second 0.98; for the third 0.85; and for the fourth 0.33.

The diseases to be notified in Bradford are smallpox, cholera, plague, diphtheria, membranous croup, erysipelas, scarlet fever, measles and German measles, whooping cough, ophthalmia neonatorum, infective enteritis, acute poliomyelitis, cerebro-spinal fever, tuberculosis, acute polio-encephalitis, encephalitis lethargica, pneumonia and influenzal pneumonia, malaria, dysentery, and the fevers known by any of the following names, typhus, typhoid, enteric, relapsing, continued or puerperal.

Diphtheria. Cases, 367; Deaths, 26; Fatality, per cent., 7.1.

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	0.19	0.18	0.12	0.21	0.16	0.15	0.16	0.10	0.10	0.09
England and Wales	0.11	0.12	0.15	0.15	0.14	0.13	0.14	0.13	0.15	0.12

The number of cases of Diphtheria in 1921 was less than that for 1920, but the fatality rate was higher. The sickness rate per 1,000 was 1.26. The greatest number of cases occurred in the Bradford Moor Ward, where 74 cases were notified, and in the West Bowling Ward, where 34 cases occurred.

CASES OF DIPHTHERIA MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases ..	38	29	36	43	26	35	25	20	32	23	33	27

The greatest incidence of the disease fell on children between 5 and 8 years of age.

CASES AND DEATHS ACCORDING TO AGE.

	Under 1 year	1—2	2—3	3—4	4—5	5—6	6—7	7—8	8—9	9—10	10—15	15—20	Over 20	Total
Cases ..	10	15	12	15	22	40	29	23	27	18	67	32	57	367
Deaths	2	4	1	2	4	3	4	—	1	—	3	1	1	26
Fatality per cent.	20·0	26·7	8·3	13·3	18·2	7·5	13·8	0·0	3·7	0·0	4·5	3·1	1·8	7·1

The number of cases removed to hospital was 295, or 80·4 per cent. of the cases.

Enteric Fever. Cases notified, 21 ; Deaths, 3 ; Fatality per cent., 14·3.

MORTALITY RATES PER 1,000 IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	0·18	0·06	0·08	0·07	0·04	0·01	0·01	0·03	0·02	0·01
England and Wales	0·04	0·04	0·05	0·04	0·03	0·03	0·03	0·01	0·01	0·02

The monthly incidence of the disease is shown as follows :—

CASES OF ENTERIC FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases ..	2	1	3	3	1	2	1	2	—	3	3	—

The sickness rate in Bradford was 0·07 per 1,000 of the population.

The number of cases removed to hospital was 15.

Scarlet Fever. Cases, 990 ; Deaths, 13 ; Fatality per cent., 1·3.

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	0·04	0·03	0·02	0·09	0·01	0·01	—	0·02	0·04	0·04
England and Wales	0·05	0·06	0·08	0·06	0·04	0·02	0·03	0·03	0·04	0·03

The number of cases of Scarlet Fever notified in 1921 is less than that of 1920. The sickness rate per 1,000 in Bradford in 1921 was 3·40. The greatest number of cases occurred in West Bowling, where 103 cases were notified, and in Great Horton where 89 cases were notified.

CASES OF SCARLET FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases ..	119	88	94	58	55	40	62	49	80	92	110	143

The cases and deaths classified according to age are seen in the following Table :—

CASES AND DEATHS ACCORDING TO AGE.

	Under 1 year	1-5 years	5-15 years	15-25 years	25-45 years	45-65 years	Over 65 years	Total
Cases	2	137	668	134	44	4	1	990
Deaths.. .. .	—	3	6	2	1	1	—	13
Fatality per cent. ..	—	2·4	0·9	1·5	2·3	25·0	—	1·3

The number of cases removed to hospital was 835, or 84·3 per cent. of the cases.

Small Pox. No cases of or deaths from Small Pox occurred in the City during 1921.

The following Table gives the vaccination returns in the Bradford Union since 1915. The figures have been supplied by Mr. Crowther, the Superintendent Vaccination Officer of the Bradford Union.

VACCINATION STATISTICS.

Year	1 Births	2 Vaccin- ated	3 Insus- ceptible	4 Dead	5 Con. Objector	6 Post- poned	7 Removed	8 Un- accounted	Percent- age not Vaccinat'd including Columns 5, 6, 7, 8
1915	4249	1559	6	365	1720	136	322	141	54·6
1916	4028	1337	6	355	1767	103	278	182	57·7
1917	3262	1068	18	287	1418	66	251	154	57·9
1918	3221	885	7	288	1367	92	310	272	63·4
1919	3310	953	5	258	1551	93	284	166	63·3
1920	5208	1363	9	370	2609	109	444	304	66·6

The figures for that part of Bradford included in the North Bierley Union, are not available.

Diarrhœa. Deaths, 80 ; Mortality per 1,000, 0·27.

DEATHS IN EACH WARD FROM DIARRHOEAL DISEASES IN 1921.

Ward	Certified as Infective			Not Certified as Infective			Total Deaths from Diarrhoeal Diseases		
	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total
Allerton	—	—	—	—	—	—	—	—	—
Bolton	1	—	1	—	1	1	1	1	2
Bradford Moor ..	1	1	2	1	1	2	2	2	4
East	—	—	—	—	1	1	—	1	1
East Bowling ..	1	—	1	5	2	7	6	2	8
Eccleshill	—	—	—	—	1	1	—	1	1
Exchange	1	—	1	—	—	—	1	—	1
Great Horton ..	—	—	—	1	—	1	1	—	1
Heaton	—	—	—	2	2	4	2	2	4
Idle	—	1	1	1	2	3	1	3	4
Listerhills	—	—	—	2	—	2	2	—	2
Little Horton ..	1	—	1	3	—	3	4	—	4
Manningham	3	1	4	4	1	5	7	2	9
North	2	—	2	3	1	4	5	1	6
North Bierley East ..	—	—	—	—	2	2	—	2	2
North Bierley West ..	—	—	—	—	—	—	—	—	—
South	4	—	4	6	3	9	10	3	13
Thornton	—	—	—	—	1	1	—	1	1
Tong	—	—	—	—	—	—	—	—	—
West	4	—	4	7	1	8	11	1	12
West Bowling	1	1	2	2	1	3	3	2	5
City	19	4	23	37	20	57	56	24	80

The majority of the deaths occurred in children under one year of age ; 45, or 56·3 per cent. of the deaths occurring at this age period.

DEATHS AT VARIOUS AGE PERIODS.

Age Periods	Months			Total under One Year.	Years.						
	0-3	3-6	6-12	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65 and over.
Deaths ..	21	13	11	45	11	1	2	1	5	6	9

DEATHS OCCURRING MONTH BY MONTH.

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Number of Deaths ..	8	4	4	6	4	2	12	12	21	3	2	2	80

The number of notifications of cases of zymotic enteritis received in 1921 was 400.

Puerperal Fever. Cases, 40 ; Deaths, 15 ; Fatality per cent., 37·5.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Cases ..	16	15	21	30	32	12	13	16	53	40
Deaths	9	6	10	17	14	7	4	11	14	15
Fatality per cent.	56·2	40·0	47·6	56·7	43·7	58·3	30·7	68·7	26·4	37·5
Number of live births to each death	621	968	571	298	350	554	968	366	431	380

Measles. Cases notified, 2,764 ; deaths, 55 ; Mortality per 1,000, 0·19.

Whooping Cough. Cases notified, 329 ; Deaths, 39 ; Mortality per 1,000, 0·13.

Erysipelas. Cases, 152 ; Deaths, 3 ; Fatality per cent., 2·0.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Cases ..	233	225	241	232	165	138	114	110	159	152
Deaths	6	9	2	8	3	2	10	5	7	3
Fatality per cent.	2·58	4·00	0·83	3·45	1·81	1·45	8·77	4·5	4·4	2·0

Influenza. Deaths, 56 ; Mortality rate per 1,000, 0·19.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Deaths	22	43	34	74	74	56	708	621	64	56

Anthrax. Cases, 4 ; Deaths, 1 ; Fatality per cent., 25·0.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Cases ..	8	13	11	8	19	7	11	8	2	4
Deaths	3	2	2	1	2	3	3	6	1	1
Fatality per cent.	37·5	15·4	18·2	12·5	10·5	42·9	27·2	75·0	50·0	25·0

(B) TUBERCULOSIS.

The number of deaths from all forms of tuberculosis in 1921 was 339, giving a mortality rate of 1·16 per 1,000.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Deaths	463	425	457	438	463	415	449	378	315	339

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	1·60	1·44	1·57	1·56	1·64	1·56	1·72	1·31	1·07	1·16
England and Wales..	1·37	1·35	1·36	1·51	1·53	1·62	1·69	1·26	1·13	—

There was a slight increase in the mortality from this cause in 1921. During the past thirty years there has been a progressive reduction in the death-rate from all forms of tuberculosis; this is well seen in the following table, which shows the average mortality rate per 1,000 for five yearly periods from 1896 :—

AVERAGE MORTALITY RATE PER 1,000 FROM TUBERCULOSIS IN
BRADFORD FOR PERIODS OF FIVE YEARS FROM 1896.

Periods	1896–1900	1901–1905	1906–1910	1911–1915	1916–1920	1921
Average Mortality rate per 1000	2·12	1·84	1·65	1·53	1·46	1·16

(A) *Pulmonary Tuberculosis*. Deaths, 268; Mortality rate per 1,000, 0·92.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Deaths	364	309	371	350	332	321	368	316	259	268

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	1·25	1·04	1·27	1·25	1·22	1·21	1·41	1·10	0·88	0·92
England and Wales..	1·02	0·99	1·02	1·14	1·16	1·23	1·32	0·98	0·87	—

Considering the deaths in relation to sex the death-rate from pulmonary tuberculosis was in 1921 among males, 1·24 per 1,000, and among females, 0·65 per 1,000. There has therefore been an increase in the male death-rate and a decrease in the female. Of the deaths occurring in 1921, nearly 42 per cent. were not notified.

The notifications received numbered 363. These notifications classified according to age and sex are seen in the following table:—

NOTIFICATION OF PULMONARY TUBERCULOSIS, 1921.

	PRIMARY NOTIFICATIONS												Total Notifications (i.e., including cases previously notified by other Doctors)
	AGE PERIODS												
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up- wards	Total	
Males	—	2	2	7	11	21	29	50	31	24	10	187	208
Females	—	2	3	8	13	28	38	28	11	1	1	133	155
Total	—	4	5	15	24	49	67	78	42	25	11	320	363

(B) *Other Forms of Tuberculosis.* Deaths, 71 ; Mortality rate per 1,000, 0·24.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Deaths	99	116	86	88	131	94	81	62	56	71

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	0·35	0·39	0·30	0·31	0·46	0·35	0·31	0·22	0·19	0·24
England and Wales..	0·35	0·36	0·34	0·37	0·37	0·39	0·37	0·28	0·26	—

There has been a slight increase in the number of deaths and in the death-rate from the forms of tuberculosis other than pulmonary. The number of cases notified during the year of other forms of tuberculosis was 93.

The tuberculosis scheme already described was in operation the whole year without alteration. In May Sanatorium benefit ceased to be administered by Insurance Committees and the Tuberculosis Officer conducted a most valuable investigation into the results of this benefit among insured persons. It is hoped that this research will be published later. Short reports follow of the work of the several units of the scheme.

(1) DISPENSARY.

REPORT BY H. VALLOW, M.D., D.P.H., TUBERCULOSIS OFFICER.

The total number of patients examined at the Anti-Tuberculosis Centre during the year 1921 was 2,653, of which 415 were new cases. Of these 415 new cases 228 were insured and 187 non-insured persons. As in previous years about 10 per cent. of the cases were found not to be suffering from Tuberculosis.

The number of patients sent to Tuberculosis institutions excluding those sent to an After Care Colony was 560, of which 126 were discharged soldiers, 108 insured men, 12 non-insured men, 162 insured women, 32 non-insured women, and 120 children.

The methods of diagnosis, especially in the case of discharged soldiers, have been extended so as to get as correct an estimate as possible of pulmonary disease caused by the war. Clinical, pathological, and radiographic examinations have been made as required, and have involved more time being spent on the cases.

The requirements of the Ministries of Health and Pensions with respect to records and reports have become so great that it was necessary to reorganise the clerical work of the centre, and a secretary to the Tuberculosis Officer was appointed. This has enabled the Tuberculosis Officer to spend more time personally over the cases and keep himself better informed of the progress of the very large number of tuberculosis cases in the city.

Treatment and supervision of the cases in the homes has been very largely carried out in association with the medical profession who have asked in numerous cases the opinion of the Tuberculosis Officer as to diagnosis and necessary changes in treatment. Dental treatment is advised in cases when necessary and suitable cases are sent to Hull After Care Colony for training following treatment in a sanatorium.

The centre has maintained a very close relationship with all the other activities of the Health Department. The home supervision of cases is done chiefly through the health visitors, and tuberculosis in school children in close collaboration with the school medical service.

GRASSINGTON SANATORIUM.

REPORT BY J. W. GRAY, M.B., B.Sc., MEDICAL SUPERINTENDENT.

ADMISSIONS AND DISCHARGES, 1921.

	Adults.		Children.		Total.	
	M.	F.	M.	F.	M.	F.
Admissions	73	65	51	43	124	108
Discharges	77	61	48	52	125	113
Remaining 31/12/21 ..	17	23	22	15	39	38

Of the cases discharged 7 men, 4 women, 4 boys, and 5 girls stayed under one month ; in 9 men, 3 women, 7 boys, and 5 girls the diagnosis was doubtful. Amongst the adult males 56 had definite pulmonary tuberculosis, the tubercle bacillus being found in 29, but not in 27, and 5 had other forms of tubercle ; amongst the adult females 53 had definite pulmonary tuberculosis, the tubercle bacillus being found in 22, but not in 31, while one had glandular tuberculosis in the neck. Amongst the children 23 boys and 35 girls had intrathoracic tubercle, 7 boys and 5 girls had tuberculosis of the bones or joints, 2 boys and 2 girls peritoneal tuberculosis, and 3 boys and 2 girls tuberculosis of the cervical glands.

GAIN IN WEIGHT.

	Adults.		Children.	
	M.	F.	M.	F.
Average stay in weeks	22	15·3	23·5	21·5
Average age	30	28	9·25	8·9
Average gain in weight	8 lb. 10 oz.	8 lb. 2 oz.	5 lb. 14 oz.	6 lb. 6 oz.

Of the male adults 2 were not weighed and 4 lost weight, of the female adults 2 were not weighed and 11 lost weight ; with the exception of 3 boys who were not weighed all the children gained in weight.

TABLE SHOWING RESULTS OF TREATMENT.

Stage	Cases with T.B. in Sputum										Cases with T.B. absent								Total													
	Much Improved		Improved		Stationary		Worse		Died		Total		Much Improved		Improved		Stationary		Total		Much Improved		Improved		Stationary		Worse		Died		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A1	1	1	—	1	—	—	—	—	—	—	1	2	11	6	8	9	—	2	19	17	12	7	8	10	—	2	—	—	—	—	39	
A2	7	3	1	—	—	—	—	—	—	—	8	3	1	5	3	3	—	—	4	8	8	8	4	3	—	—	—	—	—	—	23	
A3	3	1	3	2	—	—	—	—	—	—	6	3	—	1	1	—	—	—	1	1	3	2	4	2	—	—	—	—	—	—	11	
B1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	2	—	—	—	1	—	1	—	2	—	—	—	—	4	
B2	1	—	1	—	—	1	—	1	—	—	2	2	—	1	1	—	—	—	1	1	1	1	2	—	—	1	—	—	—	—	6	
B3	2	1	4	1	—	3	—	—	—	—	9	5	—	—	1	—	—	—	1	—	2	1	5	1	—	3	—	—	—	—	15	
C1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	1	
C2	—	—	—	—	—	—	1	2	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	—	3
C3	—	—	—	—	—	—	2	4	—	1	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	4	—	—	7
Total	14	6	9	4	—	4	6	7	—	1	29	22	12	14	15	13	—	4	27	31	26	20	24	17	—	8	6	7	—	1	109	

NOTE ON CLASSIFICATION.—Pulmonary Tuberculosis cases in adults are subdivided into two classes—(1) Tubercle Bacilli present in the sputum. (2) Tubercle Bacilli absent. Each of these classes is further subdivided according to the extent of the lesion in the lung and the severity of the symptoms. For the extent of the lesion a modified Turban-Gerhardt system of classification is used, Stage 1 being a localised lesion involving, if both lungs, not more than the extent of the clavicle in front and above the spine of the scapula behind; whilst if only one lung is affected, a lesion extending not lower than the second rib in front and the spine of the scapula behind is indicated. Stage 2 indicates a slight lesion up to one lobe, or a severe lesion of half a lobe. Stage 3 includes all other cases. The letters A B C are used to denote severity of symptoms in each stage. A denotes constitutional disturbance, absent or slight. B intermediates between A and C. C severe constitutional disturbance or deterioration. Constitutional disturbance is in each case estimated by degree of pyrexia, tachycardia, dyspnoea, malnutrition.

The capacity for work of the cases of pulmonary tuberculosis discharged in 1921 is shown below :—

			T.B. +		T.B. —	
			<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
Full	..	..	9	4	19	18
Light	..	..	6	6	6	11
Unfit	..	..	14	12	2	2
			—	—	—	—
			29	22	27	31
			==	==	==	==

The stage of exercise reached among those cases was on discharge as follows :—

			T.B. +		T.B. —	
			<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
Grade IV.	..	..	8	2	18	10
Grade III.	..	..	2	5	4	7
Grade II.	..	..	3	1	3	3
Grade I.	..	..	1	3	1	6
Walking Exercise	..		9	—	—	4
Rest	..	..	3	1	1	1
Bed	..	..	3	9	—	—
Died	..	..	—	1	—	—
			—	—	—	—
			29	22	27	31
			==	==	==	==

Of the 78 men and 45 women discharged in 1919-20, replies to inquiries as to their health on 31st December, 1921, were received in the cases of 41 men and 45 women. The replies showed that 21 men and 11 women were in full work ; 5 men in light work ; 10 women in light and home work ; 9 men and 6 women unable to work ; 2 women in good health but not working ; 3 men and 1 woman again in Sanatorium ; and 3 men and 5 women had died.

In intrathoracic tubercle in children it is not always possible to say what are the structures involved in the pathological process. The cases have therefore been divided into two classes—(1) Pulmonary where the signs of lung involvement are definite ; (2) Where the signs do not point definitely to involvement of the lung, but may quite well be due to gland affection alone. In some of these no doubt the lung is also to some extent affected. The number falling into the first class would be 12 boys and 18 girls, and into the second 11 boys and 17 girls.

RESULT OF TREATMENT OF ALL FORMS OF TUBERCLE IN CHILDREN.

35 BOYS.

				<i>Much</i>		
				<i>Improved</i>	<i>Improved</i>	<i>Worse</i>
(1) Intrathoracic Tubercle—						
(a) Pulmonary	..	..		5	6	1
(b) Glands	..	..	..	1	10	—
(2) Bones and Joints	..	..		1	4	2
(3) Glands Neck	..	..	..	—	3	—
(4) Peritoneum	..	..	..	—	2	—
				—	—	—
				7	25	3
				==	==	==

43 GIRLS.

				<i>Much</i>		
				<i>Improved</i>	<i>Improved</i>	<i>Stationary</i>
(1) Intrathoracic Tubercle—						
(a) Pulmonary	..	..		8	6	4
(b) Glands	..	..	..	7	9	1
(2) Bones and Joints	..	..		2	3	—
(3) Glands Neck	..	..	..	1	—	—
(4) Peritoneum	..	..	..	1	1	—
				—	—	—
				19	19	5
				==	==	==

All the children who are fit are recommended on discharge to go to the Open Air School at Thackley. Of the 35 boys and 43 girls in the above table, 25 boys and 33 girls were discharged as fit to go there. The remainder were either discharged for treatment elsewhere, or taken home by the parents against advice or under school age.

BIERLEY HALL SANATORIUM.

During 1921, 137 cases were admitted. Of these, 114 were adults and 23 children under 14 years of age. At the beginning of 1921 there were 46 cases under treatment ; at the end of 1921 there remained 60 cases. All classes of cases were admitted to the Sanatorium, advanced and dying cases as well as some in the early curable stage.

More than half the cases discharged were classed on admission as in 3rd stage according to the Turban-Gerhardt classification, the percentage in each stage being, Stage 1, 18·9 ; Stage 2, 26·7 ; and Stage 3, 54·4.

The average age on admission was, in adults, 28·9 years, and the average duration of stay in the Sanatorium, 126·6 days. Before admission to the Sanatorium, the patients had been off work for an average period of 25·5 weeks. The condition on discharge of 86 adult cases was as follows :—Fit for work or school, 4 ; improved, 9 ; transferred to Grassington Sanatorium, 6 ; transferred to other institutions, 2 ; died, 21 ; misconduct, 2 ; at own request or at parents' request, 24 ; contrary to medical advice, 18.

Of the adults weighed, 44 or 77·19 per cent. gained 10·14 lbs., or an average of 8·97 ounces per week ; 13 or 22·81 per cent. lost 4·97 lbs., or an average of 4·4 ounces per week.

To ascertain the degree of permanence of the results attained by treatment in the Sanatorium, inquiries from ex-patients brought the following results. Cases other than pulmonary tuberculosis are not included.

	Discharged during 1919.	Discharged during 1920.	Discharged during 1921.
Doing full work	20	13	15
Doing light or intermittent work ..	3	—	4
Unable to work	5	1	8
Died in Sanatorium	23	25	22
Died since discharge	38	16	14
Again in Sanatorium	4	4	4
Did not reply	18	10	9
Lost sight of	4	3	—
	<hr/> 115 <hr/>	<hr/> 72 <hr/>	<hr/> 76 <hr/>

REPORT ON ODSAL HOSPITAL.

During 1921, 139 cases were admitted. Of these, 124 were insured persons and 15 were uninsured. At the beginning of 1921 there were 44 cases under treatment ; at the end of 1921 there remained 31 cases. All classes of cases were admitted to the Sanatorium. Two-thirds of the cases were classed on admission as in 3rd Stage according to the Turban-Gerhardt classification, the percentage in each case being, Stage 1, 9·56 ; Stage 2, 23·49 ; Stage 3, 66·95.

The average age on admission was 35·01 years, and the average duration of stay in the Sanatorium 123·22 days. Before admission to the Sanatorium the patients had been off work for an average period of 43·4 weeks. The condition on discharge of 107 cases was as follows :— Fit for work or school, 5 ; improved, 17 ; transferred to Grassington Sanatorium, 1 ; transferred to other institutions, 4 ; died, 31 ; misconduct, 5 ; at own request, 32 ; contrary to medical advice, 12.

Of the 69 patients weighed, 50 or 72·46% gained 6·45 lbs. or an average of 5·86 ounces per week ; 19 or 27·54% lost 3·5 lbs., or an average of 3·18 ounces per week.

To ascertain the degree of permanence of the results attained by treatment in the Sanatorium, inquiries from ex-patients brought the following results. Cases other than pulmonary tuberculosis are not included.

	Discharged during 1916-17.	Discharged during 1918.	Discharged during 1919.	Discharged during 1920.	Discharged during 1921.
Doing full work	44	41	28	20	7
Doing light or intermittent work	6	3	2	1	—
Unable to work	15	13	21	19	16
Died in Sanatorium ..	60	25	33	22	28
Died since discharge ..	93	48	28	26	18
Again in Sanatorium ..	5	6	4	9	4
Did not reply	10	3	—	1	1
Lost sight of	34	8	9	6	2
	<hr/> 267 <hr/>	<hr/> 147 <hr/>	<hr/> 125 <hr/>	<hr/> 104 <hr/>	<hr/> 76 <hr/>

C. VENEREAL DISEASES.

At the municipal laboratory pathological examinations are carried out free of cost to the patient or practitioner, substitutes of salvarsan are provided free to qualified medical practitioners on application to the Medical Officer of Health ; treatment centres have been arranged at the Bradford Royal Infirmary for cases generally.

At the Bradford Royal Infirmary new accommodation has been erected for the better outdoor treatment of these diseases and arrangements have been made with the Infirmary for the utilisation of certain beds for indoor treatment. At this institution there are facilities for irrigation of cases of gonorrhœa at any time, and these facilities have largely been taken advantage of.

The Council have appointed a senior and specially trained Venereal Diseases Officer, who is employed whole time on the work and who is assisted in the work by a medical man and woman. The work has been extending rapidly, the number of attendances at the Bradford Royal Infirmary alone being nearly 30% more than that in 1920. The work has generally secured the co-operation of all persons interested, including the medical profession. A considerable number of practitioners have become qualified to receive free supplies of salvarsan substitutes, there being 41 so qualified and 398 doses given.

Statement showing services rendered at the Treatment Centres, during the year 1921.

Area.	Number of Attendances at Out-patient Clinic.	Aggregate number of In-patient Days.	No. of doses of Salvarsan Substitutes used in Treatment Centre.
Bradford ..	40066	1711	2898
West Riding	4598	379	661
Total ..	44664	2090	3559

Return relating to persons treated at the Treatment Centres during the year 1921.

	Males.	Females.
1. Number of persons dealt with at the Out-patient Clinic for the first time and found to be :—		
Suffering from Syphilis	177	101
Suffering from Soft Chancre	14	..
Suffering from Gonorrhœa	266	83
Not suffering from Venereal disease	144	29
(11 males and 23 females, double infection) Total ..	601	213
2. Number of persons discharged from the Out-patient Clinic after completion of treatment for :—		
Syphilis	1	..
Soft Chancre	7	..
Gonorrhœa	94	17
Total ..	102	17
3. Number of persons who ceased to attend the Out-patient Clinic without completing treatment and who were suffering from :—		
Syphilis	67	24
Soft Chancre	22	..
Gonorrhœa	82	36
Total ..	171	60
4. Total attendances of all persons at the Out-patient Clinic who were :—		
Suffering from Syphilis	4439	2832
Suffering from Soft Chancre	105	..
Suffering from Gonorrhœa	23374	8325
Not found to be suffering from Venereal disease	758	233
Total ..	28676	11390
5. Aggregate number of " In-patient days " of treatment given to persons suffering from :—		
Syphilis	584	403
Gonorrhœa	192	470
Soft Chancre	14	..
Not suffering from Venereal disease	30	18
Total ..	820	891
6. Number of persons treated with Salvarsan Substitutes	465	328

7. Number of doses of Salvarsan Substitutes given :

Dose.	Novarseno- billon.	Neo-kharsivan.	Silber Salvarsan.	Number of Doses.
.05 grm.	28	..	..	28
.075 „	..	..	..	..
.10 „	11	1	79	91
.15 „	25	10	48	83
.20 „	38	22	21	81
.25 „	6	..	..	6
.30 „	222	134	..	356
.40 „	..	..	..	..
.45 „	793	347	..	1140
.50 „	..	..	..	..
.60 „	772	341	..	1113
.675 „	..	..	..	..
.75 „	..	..	..	..
.90 „	..	..	..	..
Total ..	1895	855	148	2898

8. Examinations of Pathological material:—

Specimens from persons attending at the
Treatment Centre which were examined
at the municipal laboratory :—

For detection of Spirochetes	52
For detection of Gonococci	1688
For Wassermann reaction	1055
Others	3

Total .. 2798

Number of out-patients remaining under treatment :—

	Bradford.	West Riding Area
Male	844	189
Female	702	146
	<hr/>	<hr/>
Total	1546	335
	<hr/>	<hr/>

Number of persons who received in-patient treatment :—

Male	46	6
Female	41	15
	<hr/>	<hr/>
Total	87	21
	<hr/>	<hr/>

Pathological Examinations made in the Laboratory during the twelve months ending on the 31st December, 1921.

Nature of Test.		Number of Tests.
For detection of Spirochetes	For Treatment Centre	63
	For Practitioners ..	10
For detection of Gonococci	For Treatment Centre	1916
	For Practitioners ..	1042
For Wassermann reaction	For Treatment Centre	1610
	For Practitioners ..	1864
Other examinations	For Treatment Centre	18
	For Practitioners ..	2
	Total ..	6525

The following tables showing figures for the past four years seem to show that there has been a somewhat diminished prevalence of venereal disease

NUMBERS.

	1918.	1919.	1920.	1921.
Ophthalmia neonatorum cases notified	91	91	69	75
Congenital syphilis deaths registered ..	40	31	32	31
Still Births cases notified	169	186	291	216

PROPORTIONS PER 1,000 BIRTHS.

	1918.	1919.	1920.	1921.
Ophthalmia neonatorum cases notified	18.3	22.6	11.4	13.2
Congenital syphilis deaths registered ..	10.3	7.7	5.3	5.4
Still Births cases notified	44.3	46.2	48.2	37.9
Illegitimate Births registered	8.4	7.0	6.0	6.2

(D) OTHER DISEASES.

Cancer and Malignant Disease. Deaths, 397 ; Mortality rate per 1,000, 1.36.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Deaths	356	349	368	328	355	376	356	381	361	397
Mort'lity rate per 1000 ..	1.23	1.18	1.27	1.17	1.26	1.41	1.37	1.32	1.23	1.36

AGE INCIDENCE AT DEATH.

Age Periods ..	1-15	15-25	25-45	45-65	65 and upwards
Deaths ..	—	3	39	182	173

The great majority (89.4 per cent.) of the deaths therefore occurred after 45 years of age.

The number of deaths from malignant diseases is the highest ever recorded in Bradford. The increase is chiefly due to the increase of cancer of the alimentary tract.

DEATHS FROM CANCER CLASSIFIED ACCORDING TO THE ORGAN AFFECTED.

	1920.			1921.		
	Males.	Females.	Total.	Males.	Females.	Total.
Cancer of Stomach and Bowels ..	59	73	132	90	87	177
„ Liver	16	32	48	20	19	39
„ Urinary and Generative Organs	19	47	66	8	64	72
„ Breast	—	36	36	—	32	32
„ Head and Face	6	5	11	4	3	7
„ Throat and Tongue ..	25	4	29	17	8	25
„ Other parts of the body	18	21	39	24	21	45
Total	143	218	361	163	234	397

Respiratory Diseases. Deaths, 696 ; Mortality rate per 1,000, 2.39.

DEATHS FROM BRONCHITIS AND PNEUMONIA IN PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Bronchitis	359	410	381	419	400	398	511	538	350	332
Pneumonia	307	264	317	382	316	277	441	326	282	299

AGE INCIDENCE OF DEATHS.

Age Periods	1 year	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Bronchitis ..	34	15	1	1	—	14	89	178
Pneumonia ..	84	38	14	7	11	29	65	51

Rheumatic Fever and Organic Heart Disease. Deaths, 368 ; Mortality rate per 1,000, 1·3.

The following record shows the deaths occurring from these diseases during the past nine years.

	1913	1914	1915	1916	1917	1918	1919	1920	1921
Rheum'tic F'v'r	12	22	24	18	8	13	18	19	15
Organic Heart Disease ..	552	448	489	397	401	391	406	398	35

The ages at death of the total number of fatal cases of rheumatic fever during the past nine years has been as follows :—

AGE INCIDENCE OF DEATHS FROM RHEUMATIC FEVER, 1913-21.

	Under 5 years.	5-15	15-25	25-45	45-65	Over 65 years.
Deaths	2	41	20	23	39	23

Cerebro-spinal Fever. There were 7 cases notified with 5 deaths in 1921, as against 15 cases and 11 deaths in the previous year.

Encephalitis Lethargica. The cases numbered 22 and the deaths 11, as against 7 and 1 respectively in 1920.

Acute Polioencephalitis. The cases numbered 2 and deaths 1, as against none in 1920.

Deaths from Violence. Deaths, 139 ; Mortality rate per 1,000, 0·47.

RECORD OF PREVIOUS YEARS.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Deaths	143	143	164	161	207	141	139	154	139	132
Mort'lity rate per 1000 ..	·49	·48	·56	·57	·73	·53	·54	·53	·47	·45

V.—MATERNITY AND CHILD WELFARE.

(A) INFANT MORTALITY IN 1921.

The Infantile Mortality Rate for the year was 109 per 1,000 births. This rate, however, as explained in last year's report when corrected for the variation in the birth rate, becomes 107 per 1,000 births, or 3 per 1,000 births above the corrected rate for 1921.

CORRECTED INFANTILE MORTALITY RATES FROM 1914.

Year.	1914	1915	1916	1917	1918	1919	1920	1921
Bradford	121	118	117	122	123	114	104	107
England and Wales	105	108	90	92	97	90	88	80

Age Distribution of Infantile Mortality.—The following table shows the infantile mortality rate in the first four weeks of life from the year 1908.

INFANTILE MORTALITY RATE PER 1,000 BIRTHS IN THE FIRST FOUR WEEKS OF LIFE, FROM 1908.

Year.	Bradford.					England and Wales. Total for four weeks.	
	Week.				Total for four weeks.		
	1	2	3	4			
1908	..	33·8	4·7	10·0	4·7	53	40
1909	..	34·3	4·7	5·2	5·2	49	41
1910	..	28·0	6·2	5·3	5·8	45	38
1911	..	33·7	7·3	5·6	4·7	51	40
1912	..	29·4	5·1	5·7	3·2	43	38
1913	..	32·1	6·5	6·2	3·1	48	39
1914	..	27·3	5·9	7·2	3·8	44	39
1915	..	28·2	6·5	5·3	3·9	44	38
1916	..	31·1	8·1	4·7	4·7	49	37
1917	..	31·2	7·4	2·6	3·0	44	37
1918	..	28·1	6·2	3·6	3·6	42	36
1919	..	34·0	5·9	4·2	2·7	47	40
1920	..	27·8	8·9	5·8	3·6	46	—
1921	..	29·9	6·8	4·9	2·8	45	—

In the remainder of the first year of life, the Infantile Mortality Rate per 1,000 births is given in the following table. It has been necessary in this table to make certain corrections for the variations of the birth rate in Bradford. These corrections were explained in the report for 1920.

INFANTILE MORTALITY RATE PER 1,000 BIRTHS AFTER THE FIRST MONTH OF LIFE, FROM 1908.

Year.	1—3 months.		3 to 6 months.		6 to 12 months.	
	Bradford.	England and Wales.	Bradford.	England and Wales.	Bradford.	England and Wales.
1908 ..	23	24	26	24	42	32
1909 ..	22	20	19	19	29	29
1910 ..	22	20	21	19	34	28
1911 ..	26	25	28	26	35	39
1912 ..	19	18	14	15	22	24
1913 ..	21	20	27	20	31	29
1914* ..	22	19	20	19	35	28
1915* ..	19	19	21	19	34	34
1916* ..	24	17	19	15	24	22
1917* ..	23	17	24	16	31	26
1918* ..	23	17	23	16	35	28
1919* ..	18	15	20	13	28	21
1920* ..	20	—	17	—	17	—
1921* ..	23	—	18	—	22	—

* The figures of infantile mortality for Bradford for these years are founded on numbers of births corrected in each year.

From the above tables it will be seen that (1) the infantile mortality rate is showing a slight tendency to fall under 4 weeks of age, (2) the rate is almost stationary between 1 and 3 months, (3) the rate between 3 and 6 months shows a slight fall, and (4) the rate from 6 to 12 months shows a very considerable fall.

Illegitimacy and Infantile Mortality.—Since 1912 the number and the percentage of illegitimate births are shown in the following table :—

ILLEGITIMACY IN BRADFORD FROM 1912.

Year.	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Number	293	311	342	318	307	296	326	283	359	355
Percentage of total births ..	5.2	5.4	6.0	6.3	6.2	7.6	8.4	7.0	6.0	6.2

The infantile mortality rate has always been very much higher among illegitimate than among legitimate infants. The following table shows the corrected Infantile Mortality Rates amongst these two classes of infants for the past ten years :—

CORRECTED INFANTILE MORTALITY RATES AMONG ILLEGITIMATE AND LEGITIMATE INFANTS.

Year.	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Illegiti- mate	152	141	144	181	251	257	246	223	176	175
Legiti- mate	96	128	119	114	108	112	112	105	99	104

From the above table it will be seen that the infantile mortality rate amongst illegitimate infants markedly rose during the War period and that during the past two years this infantile mortality rate fell sharply. Among legitimate babies during the War period the infantile mortality rate more or less continuously fell and the fall amongst these infants since the War has been maintained.

Place Distribution of Infantile Mortality.—The Ward which showed the highest infantile mortality rate was Exchange, where the rate was 216 per 1,000 births, while Little Horton and West Wards showed rates above 150 per 1,000. The rate was lowest in the Heaton, Eccleshill, and North Bierley East Wards. The record of infantile mortality for the past ten years in the different wards of the City is shown in the table on the following page. Such a record necessarily shows very considerable variation in different years but generally the Wards showing the worst rates over this period have been the Exchange, Little Horton, North, South, West and East Bowling Wards. These Wards are all situated close to the centre of the City and in them the housing and environmental conditions are generally of the worst character.

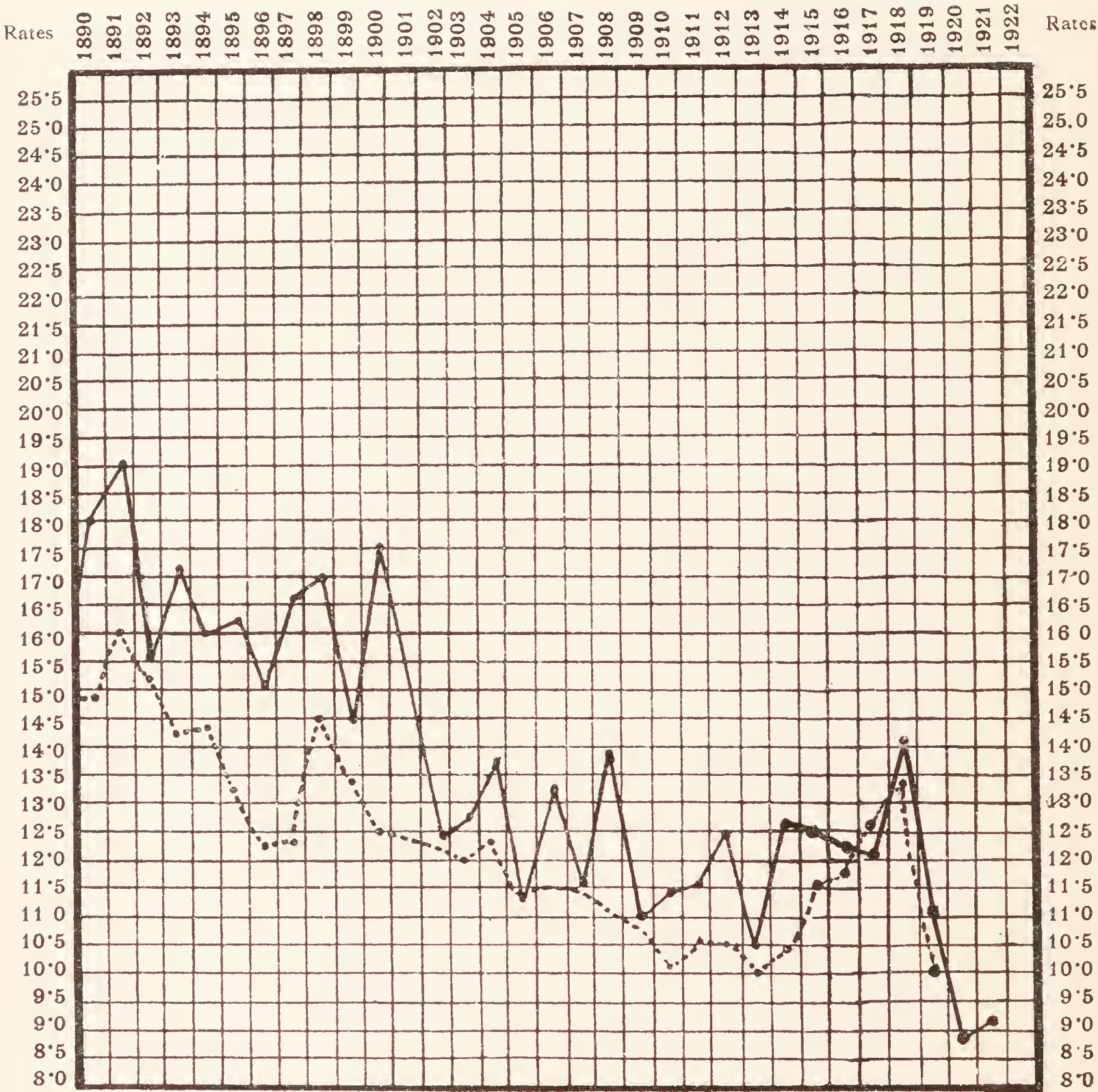
INFANT MORTALITY RATE PER 1,000 BIRTHS, IN WARDS, FOR THE
YEARS 1912 TO 1921.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Allerton	76	95	65	73	70	85	120	85	61	142
Bolton	70	81	96	95	106	86	121	115	51	92
Bradford Moor ..	110	149	121	158	159	134	118	87	104	112
East	99	112	126	114	116	128	75	68	91	77
East Bowling ..	117	107	143	112	157	149	144	163	112	119
Eccleshill	84	92	89	57	99	96	74	112	88	63
Exchange	185	196	149	333	271	214	162	200	130	216
Great Horton ..	76	90	118	121	74	86	113	71	82	78
Heaton	69	87	82	67	108	45	104	96	77	57
Idle	67	73	50	73	106	143	104	45	92	68
Listerhills	129	189	150	162	88	121	111	178	90	135
Little Horton ..	114	103	110	137	116	172	152	168	119	153
Manningham	70	159	97	112	115	151	99	122	75	133
North	126	194	192	160	95	195	214	100	124	119
North Bierley (East)	68	129	119	81	124	107	158	141	89	63
North Bierley (West)	144	82	62	67	72	165	76	157	98	86
South	119	185	176	204	176	221	195	81	109	124
Thornton	55	116	74	122	76	73	132	104	83	120
Tong	68	94	155	56	147	61	165	152	81	101
West	178	139	171	172	159	214	147	128	104	167
West Bowling ..	73	137	99	96	86	105	64	97	83	98
City	99	128	122	123	118	132	123	113	93	109

Causes of Death in Infantile Mortality.—The table on the following page shows the deaths from stated causes under one year for the past ten years. It will be noticed that of the commoner infectious diseases practically only Measles and Whooping Cough enter into the question of infantile mortality, and that Whooping Cough plays the larger part.

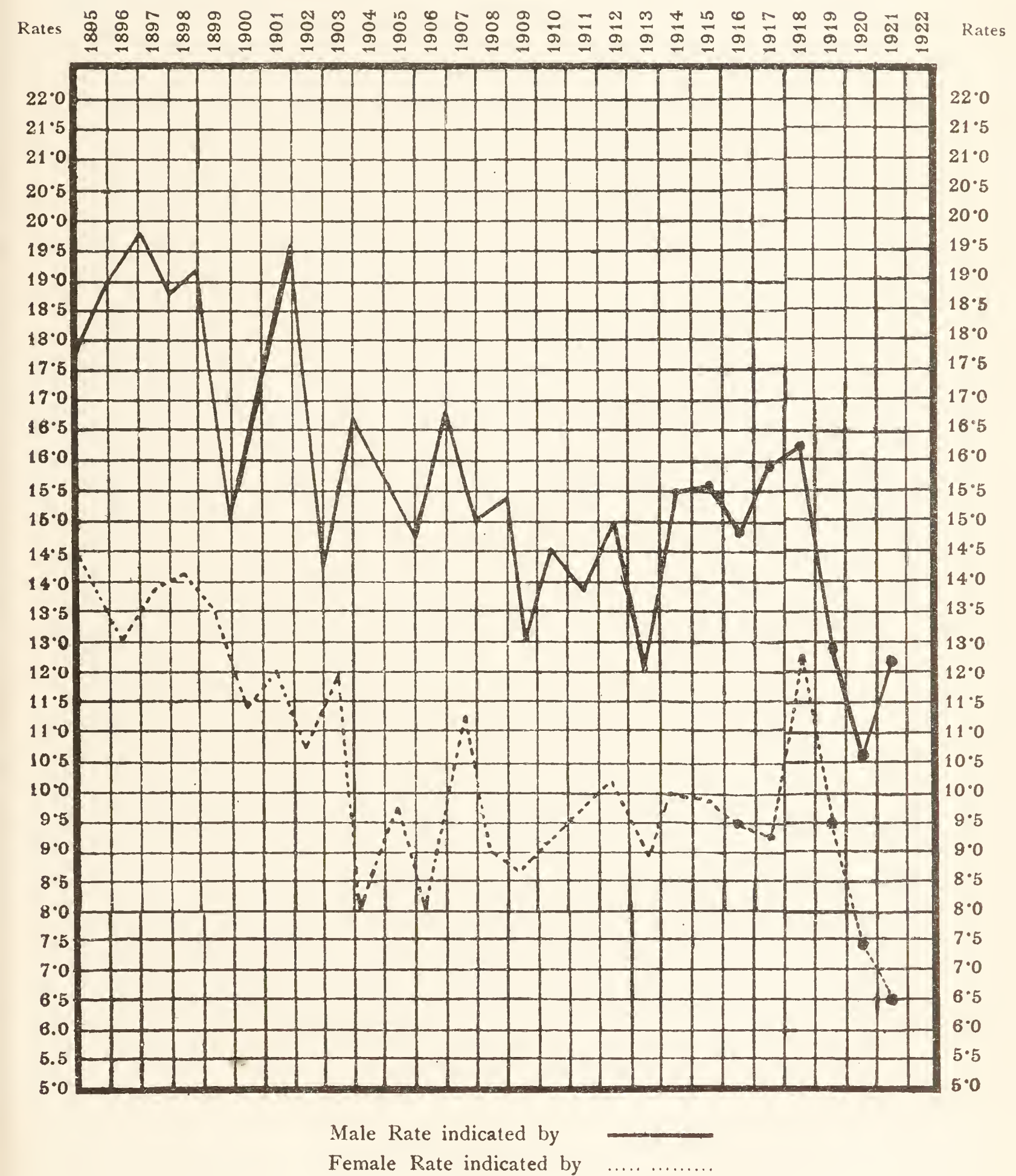


DEATH RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE POPULATION
IN ENGLAND AND WALES AND BRADFORD, 1890-1921.



England and Wales indicated by
Bradford indicated by

DEATH RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE POPULATION IN BRADFORD ACCORDING TO SEX.



During the past year there has been an increase of the number of deaths from these causes. Non-tuberculous Meningitis and Convulsions, both rather ill-defined causes of death, have decreased, while pneumonia has greatly increased. Diarrhoea and Enteritis have formed in the past a prolific cause of death in infancy but during the past six years the number of deaths from this cause has been low. Since 1914 Congenital Syphilis has contributed in an increasing fashion to the infantile mortality rate, but it is now stationary.

Premature Birth is a very large contributory cause and it shows a considerable increase last year. The infantile mortality rate arising from Premature Birth, Congenital Defects and Atrophy, Debility and Marasmus, is shown in the table below.

INFANTILE MORTALITY PER 1,000 BIRTHS FROM DEVELOPMENTAL AND WASTING DISEASES IN BRADFORD SINCE 1912.

Cause of Death	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Premature Birth	18.9	23.7	20.6	20.0	25.6	26.3	22.9	28.3	19.5	24.8
Atrophy, Debility, and Marasmus ..	18.7	22.1	15.5	17.1	17.0	20.8	17.5	13.4	11.7	8.4
Congenital Malformations	3.9	4.8	3.1	3.9	4.2	4.6	3.6	7.4	8.4	13.7
Atelectasis ..	1.9	1.0	1.9	1.3	1.2	1.5	1.5	.7	.9	1.2

Comparison with other Great Towns.---The table on page 69 shows the position of infantile mortality in Bradford and certain other Great Towns with which comparison has been made in previous reports. The relative position of Bradford during 1921 in this matter is not good. Too much importance should not be laid on the results of one year, but comparatively the improvement in infantile mortality in Bradford is slow.

INFANT MORTALITY: NETT DEATHS FROM STATED CAUSES UNDER 1 YEAR OF AGE FROM 1912.

Causes of Death.	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Small-pox	—	—	—	—	—	—	—	—	—	—
Chicken-pox	—	1	—	—	—	—	—	—	1	—
Measles	18	13	31	21	8	18	20	2	3	15
Scarlet Fever	—	—	—	1	—	—	—	—	—	—
Whooping Cough	5	15	34	20	15	12	36	—	11	19
Diphtheria and Croup	—	4	2	4	2	—	1	1	3	2
Erysipelas	—	—	1	—	—	—	—	—	1	—
Tuberculous Meningitis	9	12	5	3	12	6	1	—	4	5
Abdominal Tuberculosis	1	8	4	1	6	6	4	2	1	—
Other Tuberculous Diseases	3	8	4	4	13	5	5	2	2	1
Meningitis (not tuberculous)	5	10	12	5	8	6	11	6	12	5
Convulsions	69	53	79	54	46	43	28	34	61	38
Laryngitis	1	—	2	6	2	—	—	—	2	1
Bronchitis	36	27	41	40	38	27	34	27	40	34
Pneumonia (all forms)	77	69	68	72	58	47	47	43	43	84
Diarrhoea	11	137	44	49	22	3	8	17	13	21
Enteritis	12	17	33	21	26	21	28	17	25	24
Gastritis	2	2	11	11	6	6	4	2	5	7
Syphilis	7	15	14	31	33	67	40	31	32	31
Rickets	2	3	—	1	1	2	—	—	—	2
Suffocation (overlying)	2	—	4	4	3	2	—	4	4	2
Injury at Birth	12	6	10	12	4	3	4	3	7	8
Atelectasis	11	6	11	7	6	6	6	3	6	7
Congenital Malformations	22	28	18	20	21	18	14	30	51	78
Premature Birth	106	138	118	102	126	103	89	114	118	141
Atrophy, Debility, and Marasmus	105	129	98	87	84	81	68	54	71	48
Other Causes	37	40	49	46	41	31	29	62	47	46
Total	553	741	693	622	581	513	477	454	563	619

INFANTILE MORTALITY IN CERTAIN GREAT TOWNS FROM 1912.

Deaths per 1,000 Births.

Town.	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Birmingham	112	129	122	118	104	98	97	89	83	82
Bradford	99	128	122	123	119	132	125	114	93	109
Bristol	103	96	101	116	95	99	92	83	69	66
Halifax	82	101	103	96	90	121	126	95	97	98
Huddersfield	96	104	110	111	103	80	101	98	80	85
Hull	101	128	120	120	115	120	127	110	98	94
Leeds	103	135	124	127	129	135	133	119	105	96
Leicester	109	119	120	124	105	105	109	99	87	85
Liverpool	125	133	140	133	118	116	126	109	111	105
London	91	106	104	112	89	104	108	85	75	80
Manchester	123	129	129	128	111	111	107	97	94	94
Newcastle	102	120	137	134	123	113	108	121	96	91
Nottingham	117	131	145	131	116	127	123	107	95	102
Portsmouth	83	93	85	89	81	72	76	74	60	63
Salford	130	138	125	134	115	123	112	105	97	101
Sheffield	106	128	132	133	109	104	128	97	104	98
Stoke-on-Trent	127	171	145	148	127	116	113	112	98	135
West Ham	104	137	107	112	100	107	115	86	72	71

INFANT MORTALITY 1895—1921.

Year	Deaths under One Year of Age per 1000 Births.		
	Total.	Diarrhœal Diseases.	Total less Diarrhœal Diseases.
1895	203	52	151
1896	142	18	124
1897	179	23	156
1898	184	19	165
1899	181	22	159
1900	141	16	125
1901	168	35	133
1902	139	8	131
1903	148	19	129
1904	167	29	138
1905	144	21	123
1906	152	34	118
1907	124	11	113
1908	143	30	113
1909	116	6	110
1910	127	20	107
1911	139	32	107
1912	99	4	95
1913	128	27	101
1914	122	15	107
1915	123	16	107
1916	119	11	108
1917	132	8	124
1918	125	9	116
1919	114	8	106
1920	93	6	87
1921	109	8	101

INFANT MORTALITY IN BRADFORD AND ENGLAND AND WALES
FOR EACH YEAR, AND IN GROUPS OF FIVE YEARS SINCE 1876.

BRADFORD.			ENGLAND AND WALES.			BRADFORD.			ENGLAND AND WALES.		
		Average			Average			Average			Average
1876	176	166	146	145	153	1901	168	138	151	138	138
1877	157		136			1902	139		133		
1878	178		152			1903	148		132		
1879	152		135			1904	167		145		
1880	176		153			1905	144		128		
1881	154	160	130	139	132	1906	152	117	132	117	117
1882	174		141			1907	124		118		
1883	147		137			1908	143		120		
1884	181		147			1909	116		109		
1885	144		138			1910	127		106		
1886	168	170	149	145	122	1911	139	110	130	110	110
1887	179		145			1912	99		95		
1888	153		136			1913	128		109		
1889	181		144			1914	122		105		
1890	169		151			1915	123		110		
1891	181	176	149	151	117	1916	119	91	91	91	91
1892	155		148			1917	132		97		
1893	198		159			1918	125		97		
1894	144		137			1919	114		89		
1895	203		161			1920	93		80		
1896	143	165	148	156	109	1921	109		83		
1897	179		156								
1898	184		160								
1899	181		163								
1900	140		154								

(B) MATERNITY.

Supervision of Midwives: This work is undertaken by a woman medical officer, who also does ante-natal work. The number of midwives practising in Bradford on the 31st December, 1921, was 52, of whom 46 held the Certificate of the Central Midwives Board by examination, or its equivalent, while 6 were on the Roll as *bona fide* practitioners before the passing of the Midwives Act, 1902. Inspection of the midwives' work was carried out in 771 occasions, of which 677 were routine inspections, and 94 special inspections.

In Bradford the midwives attended in 1921, 3,796 or 66·1 per cent. of the registered births. The number of cases attended by each midwife has varied from none to 249 as will be seen in the following table :—

NUMBER OF CASES ATTENDED BY MIDWIVES, 1921.

Number of Cases	Trained Midwives		Untrained Midwives	
	No.	Total Cases	No.	Total Cases
Over 150	11	2282	—	—
130—150	2	283	—	—
110—130	4	478	—	—
90—110	3	291	—	—
70—90	—	—	—	—
50—70	2	116	1	51
30—50	2	71	—	—
10—30	10	159	—	—
Under 10	10	57	2	8
None	2	—	3	—
Total	46	3737	6	59

The number of cases now attended by untrained midwives is very small indeed, amounting only to about 1·6 per cent. of the total attended by midwives.

The number of notifications of sending for medical help was 558 or 14·7 per cent. of their cases. The number and proportion of these medical aid notices continue to increase. In 441 cases, medical aid was called in on account of the mother, and in 117 cases on account of the child. The reasons given for sending for medical aid in the case of the mother were as follows :—Ruptured Perineum, 156 cases ; Uterine Inertia, 95 ; Malpresentation, 45 ; Contracted Pelvis, 18 ; Pyrexia, 16 ; Instrumental Delivery, 16 ; A.P. Hæmorrhage, 15 ; Premature Birth, 15 ; Adherent Placenta, 12 ; Debility, 9 ; Abortions and Miscarriages, 9 ; Albuminuria, 7 ; P.P. Hæmorrhage, 5 ; Placenta Prævia, 4 ; Chest Trouble, 3 ; Heart Trouble, 3 ; Phlegmasia Alba Dolens, 2 ; Other Causes, 11 ; total, 441 cases.

In the case of the child, the reasons given for sending for medical aid were as follows :—Debility, 51 ; Inflammation in Eyes, 38 ; Malformations, 13 ; Convulsions, 6 ; Skin Disease, 4 ; Asphyxia Livida, 2 ; Hæmorrhage from Cord, 1 ; Fracture of Right Forearm, 1 ; Atelectasis, 1 ; total, 117 cases.

Notice was sent to the Local Supervising Authority of the deaths of 6 infants under the care of midwives before the arrival of a medical practitioner. The midwives reported 61 cases of stillbirths, or about 1·6 per cent. of their cases. The notices received from the trained and untrained midwives may be summarised as follows :—

Midwives.	Still Births.	Medical Aid.	Puerperal Fever.	Death of Infants before Doctor's arrival.	Ophthalmia Neonatorum.
Trained ..	61	553	3	6	31
Untrained ..	—	5	—	—	—
Total	61	558	3	6	31

The number of cases attended by municipal midwives was 2,102, or 55·4% of the total cases attended by midwives in the City. The average number of cases attended in 1921 by each municipal midwife

was 156, which is a very high average. The following statement shows the work done by the municipal midwives in the two years 1920 and 1921 as compared with the total work by midwives in the City.

WORK OF MUNICIPAL MIDWIVES.

	1920.		1921.	
	All midwives	Municipal midwives	All midwives	Municipal midwives
Births attended	4315	2470	3796	2102
Medical Aid Notices ..	623	434	558	367
Still Births	55	38	61	39
Death of Mother	1	—	—	—
High Temperature ..	4	2	3	3
Ophthalmia Neonatorum ..	38	22	31	12
Total Visits to Patients ..	—	25018	—	22497
Antenatal Visits	—	4921	—	4772

A course of lectures for the purpose of preparing pupil midwives for the examination of the Central Midwives Board was given under arrangements made with the Education Committee by a recognised teacher and was attended by 31 pupils.

Under the Midwives Act, 1918, the total number of claims for midwifery fees sent in by medical practitioners during 1921 was 218. The Local Supervising Authority determined to recover in full 121 of these claims and in part 29, leaving 68 paid in full by the Authority. The total cost to the Authority of these claims was £136 7s. 0d.

Antenatal Work. When an expectant mother is attended by a midwife other than a municipal midwife home supervision of the case is carried out by the health visitors, who during 1921 had 795 expectant mothers under observation. A very large proportion therefore of mothers are coming under observation before the birth of the child, no less than 2,897 expectant mothers being visited by either municipal midwives or health visitors in 1921.

ANTE-NATAL CENTRES.

Address.	Sessions.	Date and time of meeting.	Average Attendance Expectant Mothers.
Ashfield	Weekly	Fridays, 2 p.m.	10
Green Lane	Weekly	Tuesdays, 2 p.m.	8
Lapage Street ..	Weekly	Thursdays, 2 p.m.	7
Maternity Hospital	Weekly	Wednesdays, 2 p.m.	18
		Total ..	43

Still Births.—The number of still births notified in 1921 was 216, or 3·8 per cent. of the live births registered.

STILL BIRTHS IN PREVIOUS YEARS.

Year ..	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Number	230	270	237	235	208	200	169	180	291	216
Per cent.	4·1	4·6	4·1	4·6	4·2	5·1	4·3	4·4	4·8	3·8

Special enquiries were made into those still births notified by the midwives, when it was found that in 8 cases the still birth occurred before the end of the seventh month of pregnancy ; in 18 other cases between the seventh and eighth month ; in 14 cases between the eighth and ninth month ; and in 21 cases at full time. In 29 of these still births the foetus was found macerated and in 32 not macerated. The presentations in the 61 still births were in 46 cases vertex, in 11 breach, in 3 footling, and in 1 funis.

It will therefore be noticed that in 34 per cent. of the cases investigated the still births occurred at full time, while in nearly 50 per cent. of the cases the foetus had died some time before labour set in.

In 31 cases the mothers were between 20 and 30 years ; in 14 between 31 and 35 years ; in 10 between 36 and 40 years ; and in 6 over 40 years of age.

The pregnancy at which the still-birth occurred was in 19 the first ; in 13 the second ; in 11 the third ; in 7 the fourth ; in 4 the fifth ; in 2 the seventh ; in 2 the eighth ; in 1 the tenth ; and in 2 the twelfth.

During the year 1921, 51 post mortem examinations were made upon still-born infants to investigate the proportion of ante-natal deaths in infants due to Syphilis. Of these 51 still births, 25 were positive (Levaditi and dark-ground illuminations) or nearly 50% still births investigated were found to be Syphilitic. Of the 26 remaining, the cause of death appeared to be in 3, Asphyxia from strangulation by cord ; in 3, lack of care at birth ; in 5 difficult labour ; in 5 illness in mother ; in 6 injury to mother while at work ; in 2 anencephalic monsters ; in 1 cephal hæmatoma ; and in 1 improper development of respiratory tract.

The accommodation for Maternity cases available in Bradford includes twenty beds in the Municipal Maternity Hospital, forty beds at the Municipal General Hospital, and about six at St. Monica's Home which is run by a voluntary agency.

The Municipal Maternity Hospital takes in complicated maternity cases and ordinary maternity cases where home difficulties arise in arranging for the confinement. As far as possible all women desiring to enter the Hospital attend previously at the outdoor department, but urgent cases are admitted at any time. The number of cases admitted during 1921 was 333, and the duration of their stay varied from 10 days to 21 days, the average being just under 11 days. The number of infants born alive was 327, and the number still born 6. The number of live infants who died within 10 days of birth was 10.

The total number of premature deliveries was 10. Two maternal deaths took place in the Hospital during the year. The number of cases in which the temperature rose above 100·4°F. for 24 hours with

a rise in the pulse rate was 20. The number of cases of Ophthalmia Neonatorum was 6, and there were 6 other slight inflammations of the eyes. The number of infants not entirely breast fed while in the hospital was only 4.

The number of maternity cases dealt with at St. Monica's in 1921 was 72, the number of live children born was 68, and the number of still births 4. The maternity cases at the Municipal General Hospital are reported on page 97.

The number of cases of puerperal fever notified in 1921 was 40, of which 32 were admitted to hospital and 8 nursed at home.

The total number of cases of ophthalmia neonatorum notified was 75. All these cases were visited and supervised, and 39 of them were removed to hospital. Among the cases notified the vision in only two cases was defective after treatment, and in each case the vision in only one eye was lost so that there was no case of total blindness.

(C) INFANCY.

During the year 1921 the number of births registered in Bradford was 5,696, while the number notified under the Notification of Births Act, 1907, was 5,665.

RECORD OF PREVIOUS YEARS.

	1916	1917	1918	1919	1920	1921
Births registered	4913	3879	3871	4023	6033	5696
Births notified	5070	3988	3802	4293	6119	5665
*Notifications to 100 registrations	103·2	102·8	98·2	106·7	101·4	99·5

* The comparisons here are not quite accurate as the births notified include still births which are not registered.

TIME OF RECEIPT OF NOTIFICATIONS OF BIRTH IN 1921.

Persons notifying	Receipt of Notification.					1—2 months	2—3 months	Total	Per cent. received late
	Within 2 days	3—7 days	1—2 weeks	2—3 weeks	3—4 weeks				
Doctor.. ..	657	404	56	14	1	4	—	1136	51·0
Midwife ..	2879	486	10	—	1	1	1	3378	14·8
Father ..	213	117	11	2	—	—	—	343	37·9
Doctor and Midwife ..	89	9	—	—	—	—	—	98	9·2
Father and Doctor ..	2	2	—	—	—	—	—	4	50·0
Father and Midwife ..	4	—	—	—	—	—	—	4	—
Institutions ..	614	87	—	—	1	—	—	702	12·5
Total ..	4458	1105	77	16	3	5	1	5665	21·3

Following the receipt of the notification a large proportion of the births are visited. Speaking generally all cases notified by midwives are visited as soon as possible after the birth as well as those cases with doctors in attendance where the home circumstances are known to be poor. The number of infants notified in 1921 visited was 5,553.

BIRTHS VISITED IN 1921.

Person in attendance	Times between Birth and Visit					Total
	1 week	2 weeks	3 weeks	4 weeks	Over 4 weeks	
Doctor ..	346	678	318	221	229	1792
Midwife ..	2835	244	30	2	6	3117
Institution .	2	282	231	47	82	644

Of the 5,553 births visited it was considered that 237 required visitation once only during the first year while 5,316 were selected for frequent revisitation during their first year of life. The total number of visits paid in 1921 to infants was 47,963.

FEEDING OF INFANTS UNDER VISITATION COMPLETING FIRST YEAR.

	Hand fed from birth	Mixed feeding from birth	Wholly breast fed				
			Under 1 month	Under 3 months	Under 6 months	Under 9 months	9 months and over
Infants ..	247	52	348	782	780	1147	1693
Percentage	4.9	1.0	6.9	15.5	15.4	22.7	33.6

WORK OF MOTHERS IN 1921.

	Outside the home			Inside the Home
	Factories	Other Work	Total	
Within six months before birth ..	616	202	818	4222
Within six months after birth	159	40	199	4823

This table as compared with the previous year shows a slightly higher proportionate number of mothers employed outside the home before birth and a smaller proportionate number so employed after birth.

Of the 818 mothers working within six months before confinement 362 were employed within three months before the birth, and of the 199 mothers working within six months after confinement 91 returned to work within three months after the birth.

The number of cases of epidemic diarrhœa coming under notice and visited by the Health visitors last year was 402.

Infant Centres.—The Local Authority conducts 11 Infant Clinics in the city, at each of which a medical officer attends. The principal infant clinic is situated in Morley Street, and it is open every week-day morning and afternoon except Thursdays and Saturdays, when it is open in the morning only. The following table shows the location of each clinic, the days on which it is in operation, and the total attendances last year.

INFANT CLINICS IN BRADFORD.

Clinic	Days of Attendance	Times of Attendance	Attendances during year
Central, Morley St. . .	Daily	Morning & afternoon	17,660
Leeds Road . .	Tuesday	Morning & afternoon	2,393
Manningham . .	Thursday	Morning & afternoon	3,193
Sticker Lane . .	Friday	Morning & afternoon	1,783
Otley Road . .	Wednesday	Morning & afternoon	2,430
Brownroyd	Thursday	Afternoon only	832
Great Horton . .	Monday	Morning & afternoon	1,728
Wakefield Road . .	Friday	Morning & afternoon	1,538
White Abbey . .	Wednesday	Morning & afternoon	1,849
Wyke . .	Tuesday	Afternoon only	665
West Bowling . .	Monday	Morning & afternoon	1,674

Infant Clinics. The number of infants registered for the first time at the Infant Clinics in 1921 was 2,866. The following table shows the growth of the work since its inception.

INFANT CLINICS.

Year	New cases	Percentage of births registered	Total attendances.	Average weekly attendances	Average daily attendances
1914	2,488	43·6	31,193	600	120
1915	1,987	39·3	28,192	540	108
1916	1,998	40·6	23,490	452	90
1917	1,721	44·4	19,194	369	74
1918	1,606	41·5	17,068	328	65
1919	1,810	45·0	19,495	375	75
1920	2,832	46·9	28,829	554	110
1921	2,872	50·4	35,784	688	137

It will be seen that the number of infants brought to infant clinics has increased considerably, more than 50 per cent. of the infants born having attended. This proportion is the highest so far recorded in Bradford. The increased number is largely due to the district infant clinics at which it is much more easy for many mothers to attend with their infants. The number of attendances at the Central Clinic in 1921 was 17,689, and at the District Clinics 18,095. The total number of infants in attendance at all clinics was 4,007, of whom 196 were illegitimate infants attending for the first time during the year, thus 55 per cent. of illegitimate infants were brought as against 50 per cent. for infants generally. The ages at which infants were brought to the infant clinics is seen in the following table.

AGES ON REGISTRATION.

	Age of Infant.														
	Weeks				Months										
	—1	—2	—3	—4	—2	—3	—4	—5	—6	—7	—8	—9	—10	—11	—12
No. of Infants..	11	34	218	306	1106	471	217	155	97	66	65	48	41	33	4

The earlier age at which infants were brought to the clinic is seen by the fact that more than 58 per cent. of the infants were under 2 months old when first brought in 1921 as against 55 per cent. in 1920.

The *Infants' Hospital* is situated at the Central Clinic in Morley Street and can accommodate about 14 infants. The number of cases admitted in 1921 was 185, of which 26 were readmissions.

(D) EARLY CHILDHOOD.

Death-rate Among Young Children.—The mortality rates among children from 1—2 years and 2—5 years are seen in the following tables. In each case the mortality rate has risen, due principally to an increase in the number of deaths from the common infectious diseases. The number of cases of Measles and German Measles coming under notice under 5 years of age was 1,681, of whom 60 were removed to hospital. The number of cases of Whooping Cough under 5 years was 221.

MORTALITY RATE BETWEEN 1 AND 2 YEARS PER 1,000 PERSONS LIVING
AT THESE AGES.

	1913	1914	1915	1916	1917	1918	1919	1920	1921
General Mortality Rate	31·5	38·2	43·1	23·9	36·8	48·0	33·5	17·7	33·5
Mortality Rate from specified Group Causes :—									
Common Infectious Diseases ..	2·95	15·88	13·73	3·49	13·20	13·27	2·12	2·62	8·77
Influenza ..	0·21	0·20	·20	8·36	0·00	5·56	9·07	·59	0·00
Tuberculosis ..	4·99	3·01	3·84	3·11	5·33	3·13	1·21	1·45	3·37
Bronchitis and Pneumonia	7·48	8·28	12·13	9·72	7·41	17·52	11·19	9·01	11·92
Diarrhœa and Enteritis ..	6·85	1·81	3·23	1·95	1·62	1·57	1·21	·59	2·47
Estimated Population between 1 and 2 years on June 30th	4814	4976	4944	5144	4318	3767	3308	3439	4445

MORTALITY RATE BETWEEN 2 AND 5 YEARS PER 1,000 PERSONS LIVING
AT THESE AGES.

	1915	1916	1917	1918	1919	1920	1921
General Mortality Rate ..	11·9	7·4	10·7	21·2	11·3	7·4	8·0
Mortality Rate from specified Group Causes :—							
Common Infectious Diseases	5·13	1·89	4·18	6·55	1·26	2·09	2·97
Influenza	·07	·07	·00	4·03	3·78	·09	·02
Tuberculosis	1·14	·77	·96	1·36	1·26	·64	1·19
Bronchitis and Pneumonia	2·85	1·96	2·67	4·82	2·44	1·74	1·49
Estimated Population between 2 and 5 years on June 30th	14014	14233	14585	13879	12700	10907	10100

Preschool Centre.—In 1915 a Centre was opened in Edmund Street to continue the supervision of children from the period of infancy until they arrived at school age. This Centre has now two branches at Wakefield Road and Wynne Street, and during 1921 it undertook the medical work at the two nursery schools. At this Centre there is held weekly a special eye clinic for young children and for difficult cases referred

from the school medical service. The total number of new cases in 1921 was 1,389, of which 1,168 were general and 221 special ophthalmic cases; these cases attended on 9,837 occasions.

The total number of children under observation by this Centre during the year was 1,750, of whom 882 were boys and 868 girls. The following table shows the main classes of defects noted. In all 3,140 defects were observed or 1.79 per child under observation.

DISEASES AND DEFECTS IN YOUNG CHILDREN.

Diseases	Number affected			Percentage affected		
	Males	Females	Total	Males	Females	Total
Alimentary	155	184	339	17.6	21.2	19.4
Respiratory	383	475	858	43.4	54.7	49.0
Nervous	17	36	53	1.9	4.1	3.0
Infectious	72	83	155	8.2	9.6	8.9
Tuberculosis	15	11	26	1.7	1.3	1.5
Rickets	115	95	210	13.0	10.9	12.0
Syphilis	25	29	54	2.8	3.3	3.1
Throat, Nose, Ear ..	268	194	462	30.4	22.4	26.4
Eye	82	85	167	9.3	9.8	9.5
Debility, etc.	76	87	163	8.6	10.0	9.3
Skin—Contagious ..	178	154	332	20.2	17.7	19.0
Skin—Non-contagious ..	118	121	239	13.4	13.9	13.7
Accidents	47	35	82	5.3	4.0	4.7
Total Defects ..	1551	1589	3140	176	183	179

E. VISITATION AND OTHER WORK.

The Health Visitors paid 79,281 visits to cases during the year. Of these 1,377 were made to ante-natal cases, 47,963 to infants under one year, 5,333 being primary visits, 17,287 to children between 1 and 5 years of age, 7,546 to tuberculosis cases, 402 to cases of infective enteritis, 3,439 to cases of measles, 556 to cases of whooping cough, and 711 to cases of scabies and skin disease.

The main voluntary effort in connection with Maternity and Child Welfare in Bradford is undertaken by the Bradford Maternity Care Committee which still continues its educational work among mothers attending various medical centres organised by the Ante-Natal, Infant and Pre-School Clinics. Mothers are instructed in dressmaking, sewing, knitting, cookery, and mothercraft, by experienced teachers. There are now three centres, namely, Wakefield Road, Otley Road, and White Abbey, with 5 sewing classes and one cookery class. The total number of mothers registered at the classes is 149. Total attendances 3,174, with an average weekly attendance of 11·5. During the year, 1,063 new garments were made in the classes, and over 200 were re-made from old clothes brought by the mothers. There was also a good proportion of garments knitted by the mothers. The sales department in connection with the Ante-Natal Clinic at Ashfield is much appreciated by the mothers who attend. Here mothers can purchase most of the requirements for the confinement, and also baby garments cut out of the simplest and most suitable patterns. The Holiday Home at Addingham has again been much appreciated, 65 mothers and 111 children visiting the home during the summer months. Out of that number, 34 mothers had a sufficient amount in the Club Savings Fund to pay entirely for their own maintenance and that of their children. 7 mothers were sent to the Home by the Health Committee, and 8 mothers and their children by the Guild of Help. 16 mothers paid the larger portion of the maintenance of themselves and their children, but were assisted by the Health Committee or the Guild of Help.

VI.—BACTERIOLOGICAL AND PATHOLOGICAL WORK.

The Local Authority maintains a very well-equipped laboratory for bacteriological and allied work which in recent years has been increasing greatly both in its scope and amount. In this work two pathologists are employed.

The number of examinations carried out in the Laboratory in 1921 was 15,003. This number is exclusive of very many of the simpler bacteriological examinations done at hospitals and clinics.

REPORT BY THE CITY PATHOLOGIST,
WILLIAM CAMPBELL, M.B., CH.B., B.Sc. (Public Health).

A. Pathological Examinations.

During the year ending December 31st, 1921, reports were rendered for the following pathological examinations :—

Diphtheria	2232
Enteric Fever	133
Cerebrospinal Fever	120
Dysentery	101
Malaria	62
Bilharziasis	22
Tuberculosis	1085
Syphilis Wassermann Reactions	2746
Syphilis (Spirochaetes Dk. Grd.)	73
Gonorrhœa	2986
Gonorrhœa Complement Fixation Tests	15
Anthrax	895
Vaccines prepared.. .. .	52
Differential Blood Counts	13
Histological Sections	74
General Specimens	936
Milk Examinations	1921
Milks (Veterinary)	1005
Cattle Sputa (Veterinary)	198
Water Examinations	119
Biological Tests (for tubercle, anthrax, pneumococcus, etc.)	215
<hr/>	
Total	15,003
<hr/>	

B. Free Facilities for Co-operative Clinico-Pathological Investigation of Cases of any Class of Disease.

In any case of illness in the city the aid of the diagnostic and therapeutic applications of bacteriology, serology, morbid histology, and biochemistry has now been made available, through the City Bacteriological Laboratory, to private practitioners, consulting physicians and surgeons, and to all the hospitals, general and special, whether municipal or voluntary.

The scope of the work of the laboratory has therefore become greatly extended and varied, and much heavier. Still closer laboratory co-operation with the voluntary hospitals appears desirable.

Arrangements were made for the equipment and maintenance of a clinical and pathological laboratory in St. Luke's Municipal General Hospital. To this hospital laboratory the City Bacteriological Laboratory will act as a centre for the more involved examinations.

C. Free Issue of Vaccines, Antisera, etc.

Autogenous vaccines were prepared for such cases as were considered by their doctors likely to benefit by specific vaccine therapy. Compound Influenza Vaccine for prophylactic use, and Tetanus Antitoxin for prophylactic and therapeutic uses were supplied to the medical profession as required. Diphtheria Antitoxin and Substitutes of Salvarsan were issued from the Health Office.

D. Venereal Diseases.

The staff of the Venereal Diseases Clinics co-operates well and closely with that of the Pathological Laboratory.

During 1921 this fact permitted the diagnosis and the control of treatment of venereal diseases to be made under the best conditions with very great advantage to the patients and the public.

(a) Syphilis.

1. Microscopical diagnosis by dark ground illumination. 73 examinations were made. Of these 66 were examinations of sores suspected of being syphilitic. By the finding of spirochæta pallidum 36 cases proved to be suffering from primary syphilis.
2. Wassermann Test. 2,746 specimens of serum were examined for the Wassermann Reaction during 1921, or 472 specimens less than the number examined during 1920. This diminution is due to the fact that clinical relapses of the

disease have become much less frequent owing to a fuller appreciation by the general public of the necessity of efficient treatment.

(b) Gonococcal Inflammations. 2,986 specimens were examined for the presence of the gonococcus, and 15 complement fixation tests of serum were made. Of these examinations 2,946 and all the complement fixation tests are referable to cases of gonorrhœa. The remaining 40 examinations have reference to cases of gonococcal inflammation of the eyes of infants ; 24 cases gave a positive, and 16 cases a negative, result.

E. Anthrax.

895 samples of wool, hair, dust, etc., were examined for the presence of the bacillus of anthrax. These included 5 shaving brushes and 1 tooth brush. 2 shaving brushes of Japanese origin were found to be infected, as also were 24 samples of wool, hair, and dust.

The samples examined during 1921 and found to be infected with the bacillus of anthrax were briefly as follows :—Mohair, 16 ; Camel Hair, 1 ; Alpaca, 3 ; Wool, 4 ; Shaving Brushes, 2 ; total, 26.

Bacteriological controls of the disinfection of samples of wool were made for the Government Wool Disinfecting Station (Home Office), Love Lane, Liverpool, and 1 sample disinfected 15/11/21, was found to contain the bacillus of anthrax.

F. Milk Supply.

Biological tests for Tubercle Bacilli. 185 samples of mixed milk were tested ; 13 samples were found to contain tubercle bacilli.

Microscopic examinations for Tubercle Bacilli, etc. Of 1,484 samples of milk from individual cows collected at the cowsheds 13 contained bacilli with the morphological characters and staining reactions of the tubercle bacillus, and 128 contained pus.

VII.—HOSPITAL ACCOMMODATION.

In the first portion of this report reference is made to the hospital accommodation of the City ; in this portion further details of the hospitals under the control of the Local Authority are given.

(A) MUNICIPAL GENERAL HOSPITAL.

During the year considerable progress was made in the re-organisation of the treatment in this Hospital. Arrangements were completed so that general medical treatment by all the personnel was no longer attempted, and by further part-time appointments on the staff, the Hospital became divided up into units dealing with special branches of the work. All these changes were carried out with the assistance and harmonious co-operation of the Local Medical Advisory Committee without friction, two Senior Surgeons and one Junior Surgeon, one Senior Physician and one Junior Physician, a Gynaecologist, an Ophthalmologist and an Anaesthetist being appointed. A Hospital Medical Board was constituted consisting of the Visiting Staff and four representatives of the Local Medical Advisory Committee, with the Medical Superintendent as its Chairman.

The City Council decided to recover the cost or a proportionate cost of the maintenance and treatment of patients in the hospital. The total cost for maintenance and treatment was taken at £3 10s. 0d. per week, of which 7s. was regarded as medical and treatment charges and £3 3s. 0d. as other maintenance charges. The proportionate costs to be recovered were in general to have relationship to the rateable value of the dwellings from which the patients come and the general adjustment of the costs is shown in the following table :—

	ANNUAL RATEABLE VALUE.				
	Under £8	£8-10	£10-15	£15-20	Over £20
Proportion to be recovered . .	nil	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	full

The Council reserved to themselves the right of charging at a higher or lower rate, or remitting the charge, as the special circumstances of the case demand.

In the case of persons and their dependents under the Insurance limit of income, charges or proportionate charges are not made for medical treatment.

MUNICIPAL GENERAL HOSPITAL.

REPORT BY MEDICAL SUPERINTENDENT, B. HOLROYD SLATER, B.A.,
M.B., F.R.C.S.

I have the honour to present the second Annual Report on the working of the Bradford Municipal General Hospital, dealing with the period from January 1st to December 31st, 1921.

The increased use made of the hospital, and the more acute nature of the diseases treated, is shown by the following comparisons :—

	1921.	1920.	Increase.
No. of admissions from outside ..	4482	3804	678
No. of births in hospital	372	158	214
No. of operations performed	752	428	324
Average time spent in Hospital ..	30·1 days	36·1 days	6 days <i>decrease</i>

	Poor Law.	Civic.	Pensioners.	Total.
No. of In-patients on Dec. 31st, 1920 ..	291	129	53	473
No. of admissions during the year ..	1869	2534	79	4482
No. of live births during the year ..	69	267	—	336
				<hr/> 5291 <hr/>
No. of In-patients on Dec. 31st, 1921 ..	215	225	8	448
No. of discharges and deaths during the year	2014	2705	124	4843
				<hr/> 5291 <hr/>

The admissions from outside have been distributed through the wards as follows :—

(The corresponding figures for 1920 are given in brackets.)

	Male.	Female.	Total.
Medical Wards	1200 (1402)	1205 (712)	2405 (2114)
Surgical Wards	638 (702)	578 (324)	1216 (1026)
Children's Wards	319 (225)	301 (245)	620 (470)
Maternity Wards	— —	241 (194)	241 (194)
Live Births	178 (70)	158 (64)	336 (134)
	<hr/> 2335	<hr/> 2483	<hr/> 4818 (3938) <hr/>

The admissions are shown in greater detail in the accompanying table.

TABLE SHOWING DISTRIBUTION OF ADMISSIONS THROUGH WARDS OF HOSPITAL AND MONTHS OF YEAR.

	Maternity Wards.		Children's Wards		MEDICAL WARDS										SURGICAL WARDS		Total Admissions into Hospital Wards	Transfers from one Ward to another	Total Admissions from outside
	Admis- sions	Births	K	E1	Women				Men			Pensioners			Men A1	Women C1			
					C2	C3	E2	E3	A2	A3	B	I1	I2						
1921																			
January ..	20	15	54	4	69	9	—	15	40	27	42	20	6	40	42	403	51	352	
February ..	23	13	63	4	64	13	—	13	59	36	47	13	1	41	40	430	59	371	
March ..	31	34	59	12	65	35	—	11	54	43	38	11	3	52	53	501	72	429	
April ..	21	18	61	7	70	22	—	19	53	52	45	11	2	36	36	453	80	373	
May ..	31	25	63	8	67	30	—	12	41	38	37	10	—	46	50	458	70	388	
June ..	33	30	55	6	63	27	—	15	30	24	39	5	—	46	46	419	64	355	
July ..	35	39	88	23	65	38	—	13	35	28	32	5	—	46	62	509	63	446	
August ..	38	37	38	28	61	18	—	10	35	22	34	2	—	54	62	439	68	371	
September ..	27	23	71	20	64	41	—	8	33	33	39	5	—	52	61	477	64	413	
October ..	33	38	66	13	69	21	36	8	32	45	40	4	—	35	55	495	82	413	
November ..	30	28	41	3	83	14	34	8	34	46	47	2	—	43	40	453	72	381	
December ..	38	36	63	2	111	20	52	9	49	58	49	—	—	56	73	636	110	526	
Total admissions into wards ..	360	336	722	150	851	288	122	141	495	452	489	88	12	547	620	5673	855	4818	
Transfers from other wards ..	119	—	158	94	39	79	26	35	38	31	114	19	2	41	60	855	Total Transfers		
Total admissions from outside ..	241	336	564	56	812	209	96	106	457	421	375	69	10	506	560	4818	Total Admissions from outside		

TABLE SHOWING NUMBER OF DISCHARGES AND DEATHS FROM EACH WARD DURING 1921, AND THE AVERAGE TIME SPENT IN HOSPITAL BY THE PATIENTS.

Ward.		Number of Patients Discharged or Dead.	Total Number of Days Spent in Hospital.	Average Stay per Patient.
A1.	Male, Surgical	435	12404	28.9 days
A2.	Male, Medical, Acute ..	440	11134	25.3 days
A3.	Male, Medical, Acute & Pulmonary Tuberculosis	377	10869	28.8 days
B.	Male, Medical, Chronic ..	498	15420	30.9 days
C1.	Female, Surgical	546	16889	30.9 days
C2.	Female, Medical, Acute ..	728	14182	19.4 days
C3.	Female, Venereal & Ophthalmia Neonatorum	196	8295	42.3 days
E1.	Children, Convalescent ..	96	5084	52.9 days
E2.	Female, Antenatal, & Nursing Staff	59	1575	26.6 days
E3.	Female, Medical, Chronic	140	8051	58.0 days
I1 & 2.	Army Pensioners	122	8933	73.2 days
J.	Maternity	671	12629	18.8 days
K1 & 2.	Children, Medical and Surgical	535	20359	38.0 days
TOTAL FOR HOSPITAL		4843	145824	30.1 days*

* The average stay in Hospital during 1920 was 36.1 days.

CASES OF INFECTIOUS DISEASE.

Diphtheria	7
Dysentery	5
Enteric Fever	1
Erysipelas	32
Gastro-enteritis, acute infective	20
Influenza	32
Measles	21
Measles, German	1
Mumps	3
Gonorrhœal Ophthalmia	13
Puerperal Septicæmia	19
Scarlet Fever	2
Whooping Cough	63
TOTAL	219

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED.

DISEASE.	Males	Females	DISEASE.	Males	Females	DISEASE.	Males	Females
Abortion	—	44	Coryza	2	3	Gangrene of leg, senile	7	2
Abscesses	10	16	Cystitis	1	6	Gangrene of penis ...	1	—
Accidental Hæmorrhage	—	2	Cystocele	—	1	Gastric Ulcer	3	6
(Pregnancy)	—	2	Debility	52	42	Gastric Ulcer, perfora-	—	—
Adenitis, simple ...	4	3	Deficient Lactation ...	—	1	ted	1	—
Adenitis, suppurating...	9	9	Delirium Tremens ...	2	1	Gastritis	27	14
Adenoids	2	—	Delusional Insanity ...	1	—	Gastro-enteritis	1	1
Adenoids, & Enlarged	—	—	Dementia	—	3	Gastroptosis	—	1
Tonsils	2	7	Dementia Præcox	—	1	General Paralysis of	—	—
Adenoma of Breast ...	—	2	Dental Caries	2	1	Insane	—	1
Alcoholism	16	2	Depression of Skull ...	—	1	Genu Varus	—	1
Alopecia Areata	—	1	Dermatitis, Acute	4	1	Glossitis	1	—
Alveolar Abscess	1	—	Dermatitis, Chronic ...	3	—	Glycosuria	1	—
Amputation through	—	—	Diabetes Mellitis	4	5	Gonorrhœa	4	32
thigh	1	—	Diarrhœa	17	11	Gonorrhœa & Syphilis	—	10
Anæmia, simple	9	16	Dilatation of Stomach ...	—	1	Gonorrhœal	—	—
Anæmia, splenic	1	—	Diphtheria	5	2	Conjunctivitis	2	11
Anæmia, pernicious ...	1	—	Diplegia	—	1	Gonorrhœal Warts ...	—	1
Aneurysm, aortic	5	—	Displaced Semilunar	—	—	Gout	2	—
Angio-Neurotic Oedema	—	1	Cartilage (knee)	3	—	Granuloma, umbilical	—	1
Ankylosis of Joints ...	1	—	Dislocation, Hip	1	—	Hæmatoma	2	—
Appendicitis, acute ...	22	14	Dislocation, Radius ...	—	1	Hæmaturia	3	—
Appendicitis, chronic ...	7	17	Dislocation, Shoulder...	—	2	Hæmorrhoids	24	15
Arthritis, septic	1	—	Dislocation, Knee	—	1	Hammer Toe	4	1
Arthritis, sacro-iliac	—	—	Disseminated sclerosis	3	—	Hemiplegia	19	34
joint	—	1	Duodenal Ulcer	13	—	Hepatitis	2	—
Arterio-sclerosis	24	8	Duodenal Ulcer (per-	—	—	Hernia, inguinal	21	5
Astigmatism	1	—	forated)	5	—	Hernia, femoral	3	1
Athetosis	—	1	Dysentery	5	—	Hernia, umbilical ...	—	6
Attempted suicide by	—	—	Dysmenorrhœa	—	1	Hernia, ventral	—	2
Drowning	—	3	Dyspepsia	4	10	Hernia, internal	2	1
Gas	1	2	Eclampsia	—	1	Hernia, Biceps Humeris	1	—
Poison	1	5	Ectopia Vesicæ	—	1	Hernia, strangulated	—	—
Cut throat	5	1	Eczema	14	8	femoral	1	2
Bacilluria	—	1	Empyema	7	6	Hernia, strangulated	—	—
Banti's Disease	1	—	Encephalitis Lethargica	3	2	inguinal	3	—
Bartholini Cyst	—	2	Endometritis	—	13	Hernia, strangulated	—	—
Bell's Palsy	—	1	Enteric Fever	1	—	umbilical	—	2
Bilharzial Disease ...	1	—	Enteritis	4	5	Herpes	1	1
Blepharitis	1	1	Enteritis, acute infec-	—	—	Hydrocele	6	—
Boils	18	2	fective	10	10	Hyperthyroidism ...	—	1
Branchial Cyst	—	1	Enuresis	5	3	Hypolactation	—	2
Bronchial Asthma	19	7	Epilepsy	18	8	Hysteria	1	9
Bronchitis, Acute	61	47	Epistaxis	2	—	Imperforate Anus ...	1	—
Bronchitis, Chronic ...	171	78	Erysipelas	15	17	Imbecility	—	1
Broncho-pneumonia ...	27	29	Erythema Nodosum	—	1	Impacted Pessary ...	—	1
Bruises, etc.	28	15	Exophthalmic Goitre .	—	9	Impetigo	40	24
Burns and Scalds	6	4	Extravasation of Urine	2	—	Incontinence of Urine	7	—
Bursitis, Olecranon ...	1	—	Exostosis	1	1	Influenza	7	25
Bursitis, Prepatellar ...	—	2	Favus	1	—	Ingrowing Toenail ...	2	—
Carbuncle	5	3	Fibroids of Uterus	—	5	Insanity	—	5
Caruncle, Urethral	—	2	Fibroma of Thigh	1	—	Insomnia	1	1
Caries of Bone	1	1	Fibroma of Chest Wall	1	—	Intestinal Obstruction,	—	—
Cataract	2	—	Fissure of Anus	—	3	acute	2	3
Cellulitis	39	17	Fistula, Anal	3	1	Intestinal Obstruction,	—	—
Cerebral Abscess	1	—	Fistula, Urethral	2	—	chronic	2	—
Cerebral Concussion ...	1	2	Fistula, Vesical	5	—	Intussusception	1	—
Cerebral Hæmorrhage ...	11	11	Fracture of—	—	—	Ischio-rectal Abscess ...	14	2
Cerebral Syphilis	—	1	Clavicle	2	2	Jaundice, Catarrhal ...	3	4
Cerebral Thrombosis ...	4	3	Femur	13	10	Kyphosis	1	—
Cerebral Tumour	2	—	Fibula and Tibia	13	15	Laceration of Cervix	—	—
Charcot's Joint	1	2	Humerus	4	1	Uteri	—	2
Chlorosis	—	2	Ilium	—	1	Laryngitis	—	4
Chorea	1	2	Nasal Bone	1	—	Lichen Planus	—	1
Cicatricial Deformity ...	—	1	Patella	—	1	Lipoma	2	3
Cirrrosis of Liver	2	2	Metatarsal	1	—	Locomotor Ataxia ...	8	5
Cleft Palate	1	—	Radius	2	6	Lymphangitis	1	—
Conjunctivitis	4	6	Ribs... ..	8	3	Lumbago	11	4
Coloboma Iridis	1	—	Skull	2	1	Malignant disease of	—	—
Colic, Intestinal	5	4	Spine	1	—	Bladder	1	1
Colitis	1	—	Sternum	1	—	Breast	—	14
Constipation	10	26	Tibia	2	2	Colon	4	5
Convulsions	7	—	Gall Stones	4	28	Glands of Axilla	1	1
Corn, Suppurating	—	1	Gangrene of leg, dia-	2	—	Glands of Groin	2	1
Corneal Ulcer	1	2	betic	—	—	Glands of Neck	5	—

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*Continued.*

DISEASE.	Males	Females	DISEASE.	Males	Females	DISEASE.	Males	Females
Malignant Disease of			Painful Stump ...	4	3	Sciatica ...	3	2
Hand ...	1	—	Panophthalmitis ...	1	—	Scoliosis ...	2	—
Ilium ...	—	1	Paralysis Agitans ...	3	4	Sebaceous Cyst ...	1	1
Larynx ...	2	—	Paralysis Facial ...	1	—	Seborrhœa ...	3	1
Lip ...	2	—	Paralysis Musculo-			Seborrhœic Eczema ...	1	—
Liver ...	—	1	spiral ...	2	—	Senile Decay ...	93	66
Lungs ...	1	—	Parametritis ...	—	1	Septicæmia ...	1	1
Mediastinum ...	1	—	Paraplegia ...	3	3	Spina-Bifida ...	1	2
Oesophagus ...	2	1	Pediculosis ...	9	10	Sprains of Joints ...	18	10
Ovary ...	—	1	Parotid Tumour ...	1	—	Stich Sinus ...	—	1
Pancreas ...	1	1	Periostitis ...	2	—	Stomatitis ...	1	—
Parotid ...	1	1	Perirenal Abscess ...	3	—	Stone in Bladder ...	—	1
Pelvis ...	—	1	Periurethral Abscess ...	2	—	Stone in Kidney ...	1	1
Penis ...	1	—	Peritoneal Adhesions ...	2	7	Stricture of Urethra ...	14	—
Rectum ...	8	5	Pharyngitis ...	7	—	Synovitis ...	2	2
Spinal Cord ...	1	—	Phlegmasia Alba Dolens ...	—	1	Syphilis, Acquired ...	23	47
Skin ...	4	1	Phlebitis ...	6	4	Syphilis, Congenital ...	29	19
Stomach ...	13	6	Phimosis ...	12	—	Syphilis of Brain ...	—	1
Tongue ...	1	—	Pleurisy, Plastic ...	14	12	Syphilis of Meninges ...	2	—
Uterus ...	—	25	Pleurisy & Effusion ...	4	2	Syphilis of Lung ...	1	—
Vagina ...	—	1	Pleurodynia ...	6	2	Talipes Equinovarus ...	—	1
Vulva ...	—	2	Pneumonia, Lobar ...	54	13	Talipes Valgus ...	1	—
Malaria ...	10	—	Post Partum			Tape Worm ...	—	1
Mammary Abscess ...	—	7	Hæmorrhage ...	—	2	Tenosynovitis ...	2	—
Mania	1	1	Pregnancy ...	—	401	Thread Worms ...	—	1
Mastitis ...	—	3	Prematurity ...	4	7	Thyroid Adenoma ...	—	1
Marasmus ...	6	9	Prolapse of Rectum ...	6	—	Tonsillitis ...	3	11
Measles ...	13	8	Prolapse of Uterus ...	—	11	Torticollis ...	—	2
Measles, German ...	1	—	Prostatic Enlargement ...	33	—	Tubercular disease of		
Melancholia ...	8	3	Prostatic Abscess ...	2	—	Bladder ...	3	—
Menopause ...	—	5	Pruritus Vulvae ...	—	1	Glands in neck ...	7	10
Meningitis, Acute ...	2	3	Pruritus Ani ...	1	—	Femur ...	1	—
Meningitis			Psoriasis ...	1	1	Hip ...	7	3
Pneumococcal ...	—	1	Ptomaine Poisoning ...	—	1	Intestine ...	1	—
Menorrhagia ...	—	10	Puerperal Insanity ...	—	2	Ischio-rectal Fossa ...	2	—
Metrorrhagia ...	—	1	Puerperal Septicæmia ...	—	19	Knee ...	2	2
Migraine ...	1	—	Puerperium ...	—	15	Larynx ...	1	—
Morbus Cordis ...	84	63	Pyæmia... ...	1	—	Lungs ...	71	38
Movable Kidney ...	3	—	Pyloric Spasm (con-			Malar Bone ...	1	—
Mumps ...	3	—	genital) ...	1	—	Meninges ...	1	—
Myxœdema ...	—	1	Pyoncephrosis ...	3	1	Peritoneum ...	5	—
Nasal Polypus ...	—	1	Pyorrhœa Alveolaris ...	8	3	Pleura (Empyema) ...	—	1
Necrosis of Femur ...	3	—	Pyosalpinx ...	—	5	Pubic Bone ...	1	—
Necrosis of Humerus ...	1	—	Ranula ...	1	—	Rib ...	—	1
Necrosis of Mandible ...	3	—	Retained Placenta ...	—	1	Shoulder ...	1	1
Necrosis of Tibia ...	4	—	Retroverted Uterus ...	—	17	Skin ...	1	—
Nephritis, Acute ...	12	2	Retroverted Uterus			Spine ...	7	5
Nephritis, Chronic ...	23	3	(Gravid) ...	—	1	Testicle ...	1	—
Neuralgia ...	4	7	Rheumatic Fever ...	5	7	Tibia ...	1	—
Neurasthenia ...	32	17	Rheumatism, Sub acute ...	17	28	Tuberculosis, General ...	2	3
Neuritis, Peripheral ...	5	10	Rheumatism, Chronic ...	35	36	Ulcers ...	44	38
Obesity ...	—	1	Rheumatoid Arthritis ...	10	7	Umbilical Ulcer ...	1	—
Onychia ...	2	—	Rhinitis... ...	—	1	Uremia ...	1	1
Opium Habit ...	1	—	Rickets ...	2	8	Urticaria ...	1	—
Optic Atrophy ...	—	1	Ringworm of Scalp ...	1	2	Vaginitis ...	—	4
Orchitis ...	2	—	Rodent Ulcer ...	1	1	Varicocele ...	1	—
Osteomalacia ...	—	1	Ruptured Bladder ...	1	—	Varicose veins... ...	9	10
Osteomyelitis, Acute ...	1	—	Ruptured Perineum ...	—	4	Verminous Rash ...	5	1
Otorrhœa ...	12	8	Ruptured Tubal Gesta-			Vertigo ...	2	1
Ovarian Abscess ...	—	1	tion ...	—	4	Whooping Cough ...	29	34
Ovarian Cyst ...	—	8	Salpingitis ...	—	29	Gunshot Wounds ...	24	—
Paget's Disease of			Scabies ...	20	16	Other Wounds ...	18	15
Nipple ...	—	1	Scarlet Fever ...	—	2			

SURGICAL DEPARTMENT.

The number of operations performed during the year is 752, as compared with 428 in the year 1920.

The list of operations is as follows:—

	Recovered	Died		Recovered	Died		Recovered	Died
LAPAROTOMIES.			HERNIOTOMIES.			OPERATIONS ON EAR, THROAT, NOSE, AND CHEST.		
Appendicectomy—			Radical Cure—			For Antral Cyst ...	1	—
For acute appendicitis ...	28	1	Inguinal Hernia ...	18	—	For Empyema... ..	13	—
For chronic appendicitis ...	34	—	For Strangulated—	5	—	For Empyema, Estländer's Operation	1	—
For Appendix abscess ...	5	—	Inguinal Hernia ...	2	1	For Nasal Polypus ...	1	—
Cæsarian Section, for contracted pelvis ...	10	—	Femoral Hernia ...	2	2	For Subdiaphragmatic Abscess ...	1	—
Cæcostomy, for acute intestinal obstruction ...	1	—	OPERATIONS ON GENITO-URINARY ORGANS.			For Tonsils & Adenoids	22	—
Colotomy, for chronic intestinal obstruction — ...	8	—	Circumcision ...	13	—	Excision of Tongue ...	1	—
Colotomy, Closure of Cholechootomy, for gall stones ...	1	2	Craniotomy of Fœtus	3	—	Excision of Lower Lip	1	—
Cholecystotomy, for gall stones ...	17	1	Curettage ...	44	—	Exploration of Chest	1	—
Enterostomy, for acute intestinal obstruction ...	1	—	Cystoscopic Examination ...	5	—	Tracheotomy (for Diphtheria) ...	—	2
Enucleation of Uterine Fibroid ...	1	—	Dilatation of Cervix Uteri ...	2	—	EXCISIONS.		
Exploratory ...	8	1	Excision of Epithelioma Vulvæ ...	3	—	Adenoma of Breast ...	1	—
For Duodenal Ulcer, Rupture of... ..	3	1	Excision of Bartholin Cyst ...	3	—	Bursa, Olecranon ...	1	—
For Gastric Ulcer, Rupture of... ..	1	—	Uterine polypus ...	3	—	Bursa, Prepatellar ...	2	—
Gastrojejunostomy—			Forceps Delivery ...	5	—	Cervical Lymphatic Glands—		
For duodenal ulcer	7	—	Induction of Premature Labour ...	2	—	Tubercular ...	14	—
For gastric ulcer ..	5	—	Orchectomy ...	1	—	Malignant ...	1	—
For gastric cancer	—	3	Pelvic Examination ...	6	—	Axillary Lymphatic Glands, Malignant	1	—
For Pyloric Adhesions ...	3	—	Perineorrhaphy ...	6	—	Cyst of Neck ...	1	—
For Pyloric Stenosis	2	1	Prostatectomy, Suprabic ...	3	—	Eye-ball ...	1	—
Hysterectomy, Total for Carcinoma ...	1	—	Radical Cure of—			Epithelioma of Foot ...	1	—
Hysterectomy, Subtotal for Fibroids ...	1	—	Hydrocele ...	2	—	Epithelioma of Groin	1	—
Intussusception, Reduction of ...	—	1	Varicocele ...	1	—	Epithelioma of Thigh	1	—
Oöphorectomy and Salpingectomy, for Pyosalpinx ...	30	1	Resection of Cervix Uteri ...	2	—	Fibroma of Arm ...	1	—
Ovariectomy ...	5	—	Removal of Stone from Bladder ...	3	—	Fibroma of Parotid Gland ...	1	—
Radical Cure, Ventral Hernia ...	3	—	Suprapubic Cystotomy	1	—	Fibroma of Breast ...	1	—
Radical Cure, Umbilical Hernia ...	1	—	Trachelorrhaphy ...	2	—	Fibroma of Chest Wall	1	—
Ventrification of Uterus	12	—	Vaginal Hysterectomy.	5	1	Foreign Body from Thigh ...	1	—
For intestinal obstruction—			Version of Fœtus ...	5	—	Lipoma ...	3	—
Separation of Adhesions ...	2	—	For Adherent Placenta Praevia ...	—	1	Painful Scar ...	1	—
Lateral anastomosis	2	—	For Retained Placenta	2	—	Parotid Tumour (sarcoma) ...	1	—
Division of strangulating band ...	5	—	For Perirenal Abscess	3	—	Ranula ...	1	—
Internal hernia ...	2	—	For Periurethral Abscess	1	—	Rodent Ulcer ...	1	—
For Ruptured Tubal Gestation ...	4	—	For Extravasation of Urine ...	2	1	Sebaceous Cyst ...	3	—
For Strangulated Umbilical Hernia ...	—	1	For Retroflexed Gravid Uterus ...	1	—	Thyroid Gland (half)	1	1
For Hepatic abscess ...	1	—	For Urethral Caruncle	2	—	Thyroid Gland Adenoma ...	1	—
For Tubercular Peritonitis ...	1	—	For Urethral Stricture			Varicose Veins ...	6	—
			Rapid Dilatation ...	9	—	AMPUTATIONS.		
			Wheelhouse' Operation	2	—	Breast, for Cancer ...	7	—
			For Vesical Fistula ...	1	—	Forearm, for Cancer ...	1	—
			OPERATIONS ON RECTUM			Index ...	6	—
			For Fissure ...	3	—	Leg ...	1	—
			For Fistula ...	11	—	Thigh ...	2	—
			For Imperforate Anus (Congenital) ...	1	1	Toe ...	3	—
			For Ischio-rectal Abscess	11	—	Thumb ...	1	—
			For Carcinoma, Kraske's operation	2	—	OPERATIONS ON BONES AND JOINTS.		
			For Piles ...	27	—	Acute Osteomyelitis, Femur ...	—	1
			For Prolapse ...	4	—	Aspiration, etc., Knee	1	—
			For Stricture (simple)	1	—	Excision of Exostosis of Humerus ...	1	—
						Excision of Exostosis of Os calcis ...	2	—

SURGICAL DEPARTMENT—*Continued.*

	Recovered	Died		Recovered	Died		Recovered	Died
Plating Tibia (ununioned fracture) ...	1	—	For Dislocation of Elbow ...	1	—	Avulsion of Toe Nail	2	—
Resection—			For Dislocation of Hip (anterior) ...	1	—	Carbuncle ...	5	—
Head of Humerus	1	—	For Dislocation of Shoulder ...	2	—	Cellulitis ...	18	—
Knee ...	1	—	For Mastoiditis ...	1	—	Chronic Ulcer ...	1	—
Femur ...	1	—	For Necrosis of Mandible ...	2	—	Dental Extractions ...	15	—
Rib (T.B.) ...	1	—	For Necrosis of Femur	1	—	Exploration of Liver...	1	—
Semilunar Cartilage, Knee ...	1	—	For Suppurating Peritonitis ...	1	—	Lumbar Puncture ...	3	—
Reduction of Fractures	14	—	For Tuberculosis of—			Gunshot Wounds, Effects of ...	8	—
Removal of Lane's Plate (Femur) ...	1	—	Femur ...	1	—	Lacerated Wound ...	2	—
Sequestrotomy... ..	5	—	Foot ...	1	—	Mammary Abscess ...	6	—
Trephining Skull—			Hip ...	1	—	Pyæmia... ..	1	—
For Cerebellar Abscess ...	—	1	Ilium ...	2	—	Sinus	7	—
For Depressed Fracture ...	1	—	Malar Bone ...	2	—	Suppurating Bursitis...	1	—
Laminectomy, for Intrathecal Growth ...	1	—	Pubic Bone ...	1	—	Secondary Suture of Abdominal Wall ...	2	—
For Ankylosis of Knee	2	—	Spine ...	6	—	Tapping Ascitis ...	1	—
For Arthritis (septic) of Knee ...	3	—	Shoulder ...	1	—	Tenotomy	2	—
For Contracted Wrist	1	—	For United Fracture of Tibia	1	—	Thiersch Skin Grafting	2	—
For Caries	6	—				Umbilical Granuloma	1	—
For Hammer Toe ...	2	—	MISCELLANEOUS.			Wound of Thigh (Punctured) ...	1	—
			Abscesses	30	—			
							727	25
						TOTAL	752	

MATERNITY.

The total number of cases admitted was 401 ; the average duration of stay in hospital was 23 days. The total number of confinements was 366, with 372 children born, there being 6 twin births. Of these births 336 were live births and 36 still-births, or 9·6 per cent. children born dead. All cases were seen and examined by a medical officer on admission and at intervals before labour. In 207 cases the medical officer was called during the labour on account of abnormalities.

ABNORMALITIES IN LABOUR.

Perineal Lacerations (Forceps 7, Spontaneous 13)	20
Contracted Pelvis, Cæsarian Section...	9
Forceps	26
Craniotomy	5
Abnormal Presentations, Face	6
Transverse	4
Breech	6
Prolapsed Cord	6
Abnormalities of Mother—	
Double Vagina	1
Uterine Fibroids	1
Adherent Placenta	6
Scoliosis	3
Diseases of Mother—	
Primary Uterine Inertia	6
Venereal Disease	49
Phthisis	1
Goitre	2
Heart Disease...	8
Encephalitis Lethargica	1
Functional Paraplegia	1
Asthma	1
Toxæmias—	
Eclampsia	5
Albuminuria	12
Hyperemesis	1
Hæmorrhage—	
Ante-Partum—Accidental	4
Placenta Prævia	4
Post-Partum—Slight	8
Considerable	1
Asphyxia of Child	4
Induction of Labour for	
Heart Disease & Toxæmia	1
Eclampsia	1
Contracted Pelvis	1
Insanity & Syphilis	1
Past Full Term	2
	— 207

CASES OF PUERPERAL SEPSIS.

Recovered	4
Died	0
	— 4

CASES IN WHICH TEMPERATURE ROSE TO ABOVE 100°4, WITH RISE IN PULSE RATE.

Bacillus Coli Cystitis	1
Otitis Media	1
Acute Bronchitis	1
	— 3

CASES OF OPHTHALMIA NEONATORUM.

Cured	3
Referred elsewhere	2
	— 5

CASES WITH MILD INFLAMMATION OF THE EYES

	6
	— 6

INFANTS NOT ENTIRELY BREAST FED.

Mother dead	2
Phthisis	1
Debility of mother due to twins	4
" " " Morbus cordis	2
" " " Albuminuria	1
Deformities of Nipple	3
Failure of Milk (supply re-established)	2
Puerperal Sepsis	1
	— 16

MATERNAL DEATHS.

Encephalitis Lethargica	1
Intestinal Hæmorrhage	1
Placenta Prævia	1
Eclampsia (Post-Partum)	1
Morbus Cordis—Toxæmia—Twin	
Pregnancy	1
	— 5

STILL BIRTHS.

Anencephalus	1
" & complete Spina Bifida	1
Ventral Hernia (Mother)	2
Syphilis of Mother	5
Albuminuria of Mother	2
Toxæmia of Mother	5
Placenta Prævia	2
Malpresentations	7
Uterine Fibroids	1
Contraction Ring	1
Primary Uterine Inertia	1
Contracted Pelvis (with contra-indications to Cæsarian Section) —	
Craniotomy	3
Born spontaneously	1
Delivery attempted before admission	1
Ante-Partum Hæmorrhage—	
Accidental	1
Placenta Prævia	2
	— 36

DEATHS OF INFANTS WITHIN 10 DAYS OF BIRTH.

Congenital Syphilis	11
Prematurity due to twin births	1
" " Eclampsia	2
" " Albuminuria	1
" " Cause unknown	1
Imperforate Rectum	1
	— 17

CASES OF CONGENITAL DEFORMITY.

Anencephalus	1
" & Spina Bifida	1
Absence of Thyroid Gland (found P.M.)	1
Hare lip and cleft palate	1
Hypospadias—complete	1
Talipes Equino-Varus (double) with Flail Knee Joint	1
Imperforate Rectum	1
	— 7

CASES OF BIRTH INJURY.

Facial Paralysis	2
Erb's Paralysis	1
Cephalhæmatoma	2
	— 5

CHILDREN UNDER 2 YEARS OF AGE.

	K1	K2	E1	E2	C3
Number of admissions	201	70	52	11	14 = 348
Average duration of stay .. ..	..	..	..	..	43·7 days.
Reasons for admission :					

Reason.	Number.	Reason.	Number.
Mother in Hospital	59	Influenza	2
Abscess of Buttock	1	Intussusception	1
Abscess of Neck	6	Marasmus	17
Abscess of Scalp	2	Measles	11
Abscesses, Multiple	2	Meningitis	2
Adenitis	2	Meningitis, Pneumococcal	1
Anæmia	2	Microcephalus	1
Bronchitis, Acute	21	Ophthalmia Neonatorum	9
Broncho-pneumonia	19	Otitis Media	5
Burns and Scalds	3	Phimosis	2
Cataract, Congenital	1	Pneumonia, Lobar	1
Cleft Palate and Hare Lip	1	Prematurity	3
Congenital Defect	12	Pyloric Spasm, Congenital	1
Congenital Heart Disease	1	Rectal Prolapse	2
Conjunctivitis	1	Rickets	4
Convulsions	5	Scabies	3
Debility after Measles	1	Scarlet Fever	3
Depression of Skull (birth injury)	1	Scarlet Fever Contact	1
Diarrhœa	4	Septicæmia	1
Diarrhœa & Vomiting	3	Spina Bifida	1
Diphtheria	1	Stomatitis	1
Ectopia Vesicæ	1	Syphilis, Congenital	39
Eczema	6	Teething	5
Empyema	1	T.B. Disease of Glands of Neck	2
Enteritis, Acute Infective	15	T.B. Disease of Glands of Neck, Mediastinum	1
Enteritis, Chronic Mucous	7	T.B. Disease of Intestine	1
Erysipelas	3	Tuberculosis, General	1
Gastro-enteritis, Acute	6	Umbilical Ulcer	1
Hernia, Inguinal	1	Vomiting	4
Hydrocephalus	1	Whooping Cough	26
Impetigo	6		
Imperforate Anus	1	Total	348

Number of Cases Discharged :—

(a) Good Health	200
(b) Improved	74
(c) No improvement	30
	<u>304</u>

Number Discharged to other Institutions :—

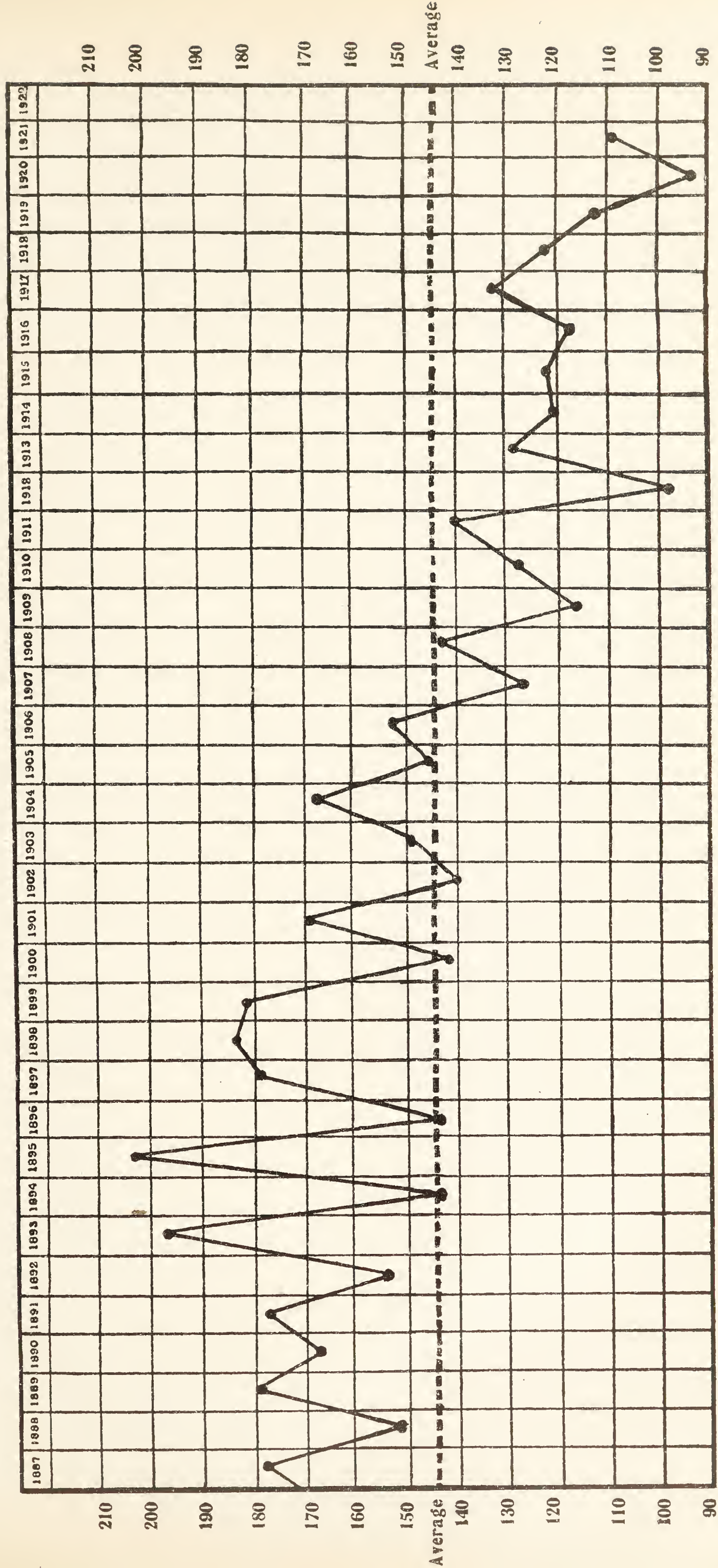
To Fever Hospital	16
To Infants' Clinic	2
	<u>18</u>

DEATHS.

There have been 680 deaths in the Hospital during the year, as compared with 545 during 1920. The relation between the ages of patients and the number of deaths is shown in the sub-joined table :—

Years of age ..	—1	1-2	2-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Number of Deaths ..	95	15	15	10	29	48	67	106	133	133	29

INFANT MORTALITY PER 1000 BIRTHS, 1887—1921.



Average for 35 years—143.

The proportion of deaths to admissions has been 14·1 per cent. as against 13·8 per cent. in 1920. The number of deaths within 3 days after admission was 131 as against 90 in 1920. The number of deaths from 3 to 14 days after admission was 232 as against 155 in 1920.

THE CAUSES OF DEATH AT ALL AGES HAVE BEEN :—

<i>Cause of Death.</i>	<i>Number.</i>
Acidosis	2
Aneurysm, Aortic	5
Appendicitis	1
Arteriosclerosis	40
Bronchitis, Acute	17
Bronchitis, Chronic	23
Bronchial Asthma	3
Broncho-pneumonia	12
Burns	1
Cerebral Abscess	1
Cerebral Hæmorrhage	28
Cerebral Thrombosis	9
Cerebral Tumour	1
Cellulitis, Toxæmia	1
Cholecystitis	1
Cirrhosis of Liver	4
Convulsions	4
Cut Throat, Suicidal	1
Cystitis	2
Dermatitis, Acute General	2
Diabetes Mellitus	7
Dislocation of Shoulder	1
Disseminated Sclerosis	1
Duodenal Ulcer, Perforation	4
Empyema	1
Encephalitis Lethargica	4
Enteritis, Acute Epidemic	4
Enteritis, Acute	3
Enteritis, Chronic Mucous	3
Erysipelas	1
Exophthalmic Goitre	1
Extravasation of Urine	1
Fracture of Femur	3
Fracture of Skull	1
Gall Stones	5
Gangrene of Leg, Senile	9
Gangrene of Penis-Toxæmia	1
Gastric Ulcer, Perforated	3
Gastro-enteritis	1
General Paralysis of Insane	1
Gun Shot Wounds, Abdomen	1
Hemiplegia	12
Hydrocephalus	1
Imperforate Rectum	1
Influenza	3
Intestinal Obstruction, Acute—	
Intussusception	1
Peritoneal Adhesions	2
Strangulated Femoral Hernia	1
Strangulated Inguinal Hernia	3
Strangulated Internal Hernia	1
Intestinal Hæmorrhage	1
Ischio-rectal Abscess	1
Locomotor Ataxy	3
Malaria—Cerebral	1
Malignant Disease of Bladder	2
Malignant Disease of Breast	4
Malignant Disease of	
Colon	6
Larynx	4
Lip	1
Liver	1
Lung	1
Oesophagus	2

<i>Cause of Death.</i>	<i>Number.</i>
Pancreas	2
Parotid... ..	1
Rectum	5
Skin	2
Spinal Cord	1
Stomach	13
Thyroid Gland	1
Uterus	11
Vulva	1
Maramus	16
Meningitis, Acute	3
Meningo-encephalitis	1
Morbus Cordis	68
Necrosis of Femur	1
Nephritis, Acute	3
Nephritis, Chronic	16
Osteomyelitis, Acute Infective	2
Paralysis Agitans	2
Paraplegia	2
Pemphigus Neonatorum	1
Pericrinal Abscess	2
Peritonsillar Abscess	1
Periurethral Abscess—Toxæmia	1
Pernicious Anæmia	4
Placenta Prævia	1
Placenta Retained	1
Pleurisy, Acute	1
Pneumonia, Hypostatic	3
Pneumonia, Lobar	32
Poisoning, Oxalic Acid, Suicidal	1
Prematurity	18
Prostatic Hypertrophy	5
Pyloric Stenosis	1
Renal Calculi	2
Rheumatic Fever	1
Rheumatoid Arthritis	2
Scalds	1
Senile Decay	55
Septicæmia—	
Abortion	1
Boils	1
Impetigo of Scalp, etc.	1
Otitis Media	2
Piles, Thrombosed	1
Puerperal	8
Pyelonephrosis	1
Retained Pessary	1
Spina Bifida	1
Status Lymphaticus	1
Syphilis, Acquired	6
Syphilis, Congenital	29
Tuberculosis of	
Ilium	2
Intestine	1
Ischio-rectal Fossa	1
Lungs	51
Peritoneum	1
Sacro-iliac Joint	1
Tuberculosis, General	7
Whooping Cough	13

680

In addition to above, one patient was dead on admission.

(B) INFECTIOUS DISEASES HOSPITALS.

The following Table gives a summary of the cases admitted from Bradford to the infectious diseases hospitals; no cases of smallpox occurred during the year:—

				Leeds Road	North Bierley	Calv'ley	Th'ronton	Total
Scarlet Fever	..	..	..	727	60	62	—	849
Diphtheria	..	..	..	282	5	16	—	303
Enteric Fever	..	..	..	14	1	—	—	15
Cerebro Spinal Fever	..	..	..	9	—	—	—	9
Erysipelas	..	..	..	21	—	—	—	21
Puerperal Fever	..	..	..	6	—	—	—	6
Measles	..	..	..	75	—	—	—	75
Pneumonia	..	..	..	7	—	—	—	7
Other Diseases	..	..	..	51	—	—	—	51
Totals	..	..	..	1192	66	78	—	1336

CITY HOSPITAL, LEEDS ROAD.

REPORT OF THE MEDICAL SUPERINTENDENT, JAMES T. KITCHIN,
M.D., D.P.H.

On the 1st January, 1921, there were 165 cases in hospital and 1192 cases were admitted during the year, making a total of 1357 cases under treatment. Of these, 1109 cases were discharged relieved or cured, 59 died, and 189 were in hospital on the 31st December. The general fatality rate among the cases admitted was therefore just under 5 per cent. More than half the cases admitted were suffering from Scarlet Fever and about one-quarter from Diphtheria. The following tables show details of the nature of the cases and the work done.

TABLE SHOWING NUMBER OF CASES ADMITTED
DURING EACH MONTH.

1921.	Scarlet Fever.			Enteric Fever.			Diphtheria.			Other Diseases.			Total Admissions.		
Month.	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
Jan. ..	30	35	65	—	2	2	12	16	28	7	8	15	49	61	110
Feb. ..	27	28	55	—	1	1	7	17	24	5	1	6	39	47	86
Mar. ..	23	42	65	—	2	2	13	20	33	7	6	13	44	70	113
April	18	25	43	—	—	—	15	14	29	2	9	11	35	48	83
May ..	17	17	34	—	—	—	6	11	17	17	10	27	40	38	78
June ..	9	22	31	1	1	2	16	18	34	13	14	27	39	55	94
July ..	23	29	52	1	—	1	6	13	19	13	14	27	43	56	99
Aug. ..	16	18	34	1	1	2	8	9	17	4	5	9	29	33	62
Sept.	25	44	69	1	—	1	5	19	24	2	2	4	33	65	98
Oct. ..	34	36	70	1	—	1	6	11	17	3	7	10	44	54	98
Nov. ..	38	53	91	—	2	2	8	11	19	7	5	12	53	71	124
Dec. ..	54	64	118	—	—	—	5	16	21	6	2	8	65	82	147
Totals	314	413	727	5	9	14	107	175	282	86	83	169	512	680	1192

TABLE SHOWING SEX AND AGE INCIDENCE IN SCARLET FEVER AND DIPHThERIA.

Age	Scarlet Fever						Diphtheria					
	Males			Females			Males			Females		
	Admitted	Died	Death Rate per cent.	Admitted	Died	Death Rate per cent.	Admitted	Died	Death Rate per cent.	Admitted	Died	Death Rate per cent.
Under 1	1	—	—	1	—	—	4	1	—	3	1	28·57
1—2	5	1	10	10	1	10	6	1	—	9	1	13·3
2—3	13	1	5·55	18	1	5·55	3	—	—	3	—	—
3—4	18	2	6·45	31	2	6·45	5	—	—	8	1	7·6
4—5	21	1	2·17	46	1	2·17	5	1	—	10	1	13·3
Total under 5	58	5	4·71	106	5	4·71	23	3	—	33	4	14·2
5—10	125	2	1·65	303	5	1·65	41	3	—	59	4	7
10—15	69	2	1·1	181	2	1·1	22	2	—	32	1	5·55
15—20	38	—	—	65	—	—	8	—	—	14	—	—
20—25	11	—	—	41	—	—	2	—	—	19	—	—
25—30	7	—	—	15	—	—	4	—	—	6	—	—
30—35	2	—	—	8	—	—	3	—	—	6	—	—
35—40	1	—	—	3	—	—	2	—	—	1	—	—
40—45	1	—	—	3	—	—	—	—	—	2	—	—
45—50	1	—	—	1	—	—	1	—	—	2	—	—
50—55	1	—	—	1	—	—	1	—	—	1	1	50
Total	314	9	1·65	727	12	1·65	107	8	—	175	10	6·38

SUMMARY.

YEAR.	SMALL-POX.			ENTERIC FEVER.			SCARLET FEVER.			DIPHTHERIA.			OTHER DISEASES.			TOTALS.			From 1886 to 1921.	
	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Aggregate No. of days spent in Hospital.	Average No. of days for each Patient.
1886	4	.	..	83	8	9.63	625	29	4.64	..	..	..	14	2	14.3	726	39	5.37	29,305	40 $\frac{1}{3}$
1887	3	..	..	79	7	8.86	830	21	2.27	..	..	..	9	5	55.5	921	33	3.58	38,609	42 $\frac{1}{4}$
1888	16	2	12.5	57	6	10.53	283	12	4.24	..	.	..	11	1	9.9	367	21	5.72	16,479	46
1889	9	1	11.11	90	26	28.89	355	40	11.27	..	..	..	36	6	16.67	490	73	14.90	21,315	43 $\frac{1}{2}$
1890	..	..	..	59	11	18.64	380	22	5.78	..	..	..	43	12	27.90	484	45	9.30	19,940	41 $\frac{1}{4}$
1891	..	..	..	76	15	19.6	780	83	10.6	..	..	..	39	10	25.6	897	108	12.04	39,838	44
1892	25	4	16.6	41	11	26.8	587	27	4.6	..	..	..	32	7	21.8	685	49	7.2	29,191	42 $\frac{1}{2}$
1893	935	100	10.6	11	4	36.3	228	17	7.8	..	..	..	12	1	8.3	1186	122	10.2	34,203	28.8
1894	..	..	..	42	8	19.0	525	30	5.7	..	..	..	16	..	..	583	38	6.5	27,124	46.5
1895	..	..	..	97	20	20.6	250	16	6.4	..	..	..	28	9	32.14	375	45	12.0	17,331	46.21
1896	..	.	..	77	15	19.4	248	14	5.6	..	..	..	21	6	28.5	346	35	10.1	17,368	50.1
1897	..	..	..	74	11	14.8	226	5	2.21	..	..	..	17	8	47.05	317	24	7.5	14,549	45.8
1898	..	..	..	162	21	12.9	556	7	1.2	..	..	..	42	16	38.09	760	44	5.8	35,112	46.2
1899	..	..	..	131	16	12.2	1658	74	4.4	..	..	..	24	11	45.8	1813	101	5.5	87,024	48
1900	..	..	..	175	38	21.7	821	42	5.1	..	..	..	34	6	17.6	1030	86	8.3	47,998	46.6
1901	..	..	..	137	18	13.1	573	18	3.1	..	..	..	36	12	33.3	746	48	6.4	33,868	45.3

1903	..	..	..	80	13	16.25	467	19	4.06	96	22	22.9	25	6	24.0	668	60	8.9	30,193	45.1
1904	..	..	..	64	17	26.5	550	17	3.09	437	85	19.4	28	5	17.8	1079	124	11.4	44,454	41.2
1905	..	..	..	85	11	12.9	570	32	5.6	275	37	13.4	24	4	16.6	954	84	8.8	41,403	43.4
1906	..	..	..	121	20	16.52	694	22	3.17	183	14	7.65	15	6	40.0	1013	62	6.12	42,850	42.3
1907	..	..	..	50	10	20.0	374	12	3.2	141	16	11.34	13	2	15.3	578	40	6.9	23,871	41.3
1908	..	..	..	88	18	20.0	493	9	1.82	177	15	8.47	10	3	30.0	768	45	5.8	32,640	42.5
1909	..	..	..	32	5	15.62	622	13	2.09	175	24	13.71	32	8	25.0	861	50	5.8	35,559	41.3
1910	..	..	..	67	13	19.4	457	9	1.9	209	14	6.6	18	4	22.2	751	40	5.3	30,190	40.2
1911	..	..	..	93	19	20.4	367	4	1.08	271	23	8.4	29	8	27.5	760	54	7.1	33,668	44.3
1912	..	..	..	172	31	18.0	415	8	1.9	255	27	10.5	40	10	25.0	882	76	8.6	38,278	43.4
1913	..	..	..	43	6	13.9	324	6	1.8	291	34	11.6	25	7	28.0	683	53	7.7	29,095	42.6
1914	..	..	..	40	7	17.5	323	6	1.8	239	19	8.0	33	3	9.1	635	35	5.5	25,056	39.5
1915	..	..	..	34	5	14.7	324	17	5.2	315	37	11.7	88	14	15.9	761	73	9.5	30,316	40.1
1916	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1917	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1918	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1919	..	..	..	15	4	26.6	18	..	..	196	6	3.06	65	12	18.5	294	22	7.5	9,115	31
1920	..	..	..	25	3	12.0	721	11	1.52	347	22	6.34	134	22	17.9	1227	58	4.8	41,104	33.5
1921	..	..	..	14	5	35.7	727	12	1.65	282	18	6.38	169	24	14.2	1192	59	4.9	38,815	32.5

There were only 14 cases of Enteric Fever admitted, five of which died. The admissions and deaths from other diseases were as follows :— Puerperal Fever, 6 cases, 1 death ; Cerebro-Spinal Meningitis, 9 cases, 4 deaths ; Tubercular Meningitis, 2 cases, 2 deaths ; Measles, 72 cases, 12 deaths ; Erysipelas, 21 cases, 1 death ; Influenza, 16 cases, 2 deaths ; Pneumonia, 7 cases, 2 deaths ; Encephalitis Lethargica, 4 cases, Whooping Cough, 3 cases, German Measles, 3 cases, Coli Infection, 3 cases, Chicken Pox, 5 cases, Rheumatic Fever, 1 case, Tonsillitis, 16 cases, and Mania, 1 case, all with no deaths.

(C) SPECIAL HOSPITAL ACCOMMODATION.

(1) *Ophthalmia Neonatorum*.—During the year the treatment of cases of Ophthalmia Neonatorum was removed from Leeds Road Hospital to the Municipal General Hospital, St. Luke's, under the care of the Ophthalmologist. Altogether 44 cases were treated in hospitals in 1921.

(2) *Throat, Nose, Ear and other Eye cases*.—The local authority has treated in hospital for some years operative cases of diseases of the throat, nose, ear and eye occurring among children referred from various clinics. The following table shows the cases treated in 1921.

	Remaining in Hospital 31st Dec. 1920.	Admitted	Discharged.	Died.	Remaining in Hospital 31st Dec., 1921.
Tonsils and Adenoids ...	...	589	589	...	...
Eye Cases ...	...	40	40	...	...
Ear Cases ...	...	28	28	...	...
Nose Cases ...	...	5	5	...	...
Other Cases ...	7	101	103	...	5
Totals ...	7	763	765	...	5

VIII.—HOUSING.

(1) *New Houses in 1921.*—The average number of new houses certified as fit for human habitation annually during the 5 years preceding 1907 was 1,086, and the following statement shows the number so certified each year since then.

Year.	New Houses.	Year.	New Houses.	Year.	New Houses.
1907	637	1912	393	1917	32
1908	486	1913	349	1918	38
1909	476	1914	394	1919	6
1910	626	1915	306	1920	38
1911	396	1916	128	1921	446
1907– 11	524 (average)	1912– 16	314 (average)	1917– 21	112 (average)

The number of new houses built during the past ten years in each Ward and certified as fit for human habitation in accordance with the Bradford Waterworks and Improvement Act, 1871, is shown in the Table on the following page.

The position with regard to house building by the City Council on the 31st December, 1921, was as follows :—The number of houses for which contracts have been let is 658, to which is to be added 198 to be carried out by direct labour, making a total of 856 houses (264 parlour type and 592 non-parlour type) ; at the close of the year 422 houses were completed and occupied. The number of houses in course of erection then was 320, while 23 others were being built by private enterprise, for which subsidies under the Housing (Additional Powers) Act, 1919, were granted.

NEW BUILDINGS.

Showing number of New Buildings certified as fit for habitation in each of the Wards, and in the whole City, during the years 1912-1921.

WARDS.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.
Allerton	21	10	13	10	4	...	2	...	...	3
Bolton	10	13	3	...	...	...	..	...	2	2
Bradford Moor	81	60	31	38	28	5	..	...	11	152
East	10	...	23	14	...	...	...	...	...	...
East Bowling... ..	39	6	3	...	...	...	...	...	...	1
Eccleshill	25	31	20	16	2	1	...	...	5	4
Exchange ... ..	...	...	2	1	...	...	...	...	...	...
Great Horton	32	58	62	26	21	6	...	...	3	73
Heaton	34	38	40	43	8	7	2	...	5	5
Idle	10	32	36	34	5	...	...	...	8	78
Listerhills ... ..	...	...	...	...	...	...	...	.	...	2
Little Horton	4	7	2	...	...	...	4	...	...	...
Manningham	42	24	37	17	17	7	...	...	...	3
North	6	2	...	...	...	1	...	...	...	...
North Bierley East	8	...	3	13	7	1	29	...	1	1
North Bierley West	20	21	48	28	4	2	...	1	...	119
South	1	1	...	...	...	...	...	...	...	1
Thornton ... ..	...	1	2	1	...	2	...	...	...	...
Tong	15	20	..	2	...	...	1	...	...	...
West	2	...	62	...	...	...	...	...	...	...
West Bowling	33	25	7	63	32	...	...	5	3	2
CITY TOTAL... ..	393	349	394	306	128	32	38	6	38	446

(2) *Overcrowding*.—Many very serious cases of overcrowding came to the knowledge of the department during the year but on account of the scarcity of housing accommodation little could be done to mitigate the position. Of the inspection recorded under the Housing (Inspection of District) Regulations, 1910, at least one in twelve of the houses was found to be in a gravely overcrowded state. Several houses which had been officially closed as uninhabitable became occupied without the consent of the Local Authority and the people for a large part were living under most abnormal conditions. A report was presented to the Housing Committee dealing with this subject.

It is impossible for the Corporation, even in the near future, to carry out any improvement or reconstruction scheme dealing with the large number of derelict and worn out properties existing in the City which are beyond repair. Up to the present the number of applicants for new houses is approximately 6,000, and of these 4,036 are ex-service men, 3,245 of whom are living in apartments.

(3) *General Standard of Housing*.—A census made last year of the number of back-to-back houses in Bradford showed that there were 40,553 in the City, of which 31,792 are built in blocks of four and eight. The total number of houses in areas to be dealt with under Part I. and Part II. of the Housing Act, 1890, as unhealthy areas is 3,986, and the predominating type of dwelling is the back to back, of which there are 2,942 or 74 per cent., and 320 single backs or 8 per cent., leaving 724 or 18 per cent. with through ventilation.

(4) *Miscellaneous*.—Under Section 5 of the Housing (Additional Powers) Act, 1919, which has now expired, 37 applications were received for permission to use dwelling houses in whole or part otherwise than as dwelling houses. Of this number permission was granted in 29 cases and refused in the remaining eight cases.

During the year 38 applications were made by tenants for the inspection of their houses with a view to the issue of certificates under the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920. All the dwelling houses were inspected and certificates granted in 35 cases, no certificates being issued in respect of the remaining three houses.

HOUSING STATISTICS, 1921.

Number of new houses erected during the year:—

(a) Total	446
(b) As part of a municipal housing scheme	414

I. Unfit dwelling-houses.

Inspection—(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	6,565
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 ..	2,968
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ..	942
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	4,513

II. Remedy of Defects without service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers.. ..	850
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I II. Action under Statutory Powers.

A. Proceedings under section 28 of the Housing, Town Planning, &c. Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs.. .. .	526
(2) Number of dwelling-houses which were rendered fit	
(a) by owners	381
(b) by Local Authority in default of owners	7
(3) Number of dwelling-houses in respect of which closing orders became operative in pursuance of declarations by owners of intention to close.. .. .	7

B. Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	1,725
(2) Number of dwelling-houses in which defects were remedied	
(a) by owners	1,519
(b) by Local Authority in default of owners	45

C. Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c. Act, 1909.

(1) Number of representations made with a view to the making of closing orders	2
(2) Number of dwelling-houses in respect of which closing orders were made	2
(3) Number of dwelling-houses in respect of which closing orders were determined, the dwelling-houses having been rendered fit	—
(4) Number of dwelling-houses in respect of which demolition orders were made	—
(5) Number of dwelling-houses demolished in pursuance of demolition orders	—

IX.—MISCELLANEOUS.

(A) AMBULANCE WORK AND DISINFECTION.

The ambulance facilities for the City are as follows :—At the City Fever Hospital there is provided a motor ambulance which during 1921 removed 1790 cases to Hospital. For non-infectious cases at the Municipal General Hospital a motor ambulance is provided ; while for non-infectious and accident cases elsewhere the Police maintain a motor ambulance and a horse ambulance. Two motor ambulances are maintained for the removal of physically defective children to school and one motor ambulance is maintained at Grassington for the removal thereto of cases of Pulmonary Tuberculosis.

The total number of articles disinfected at the Disinfecting Station, Canal Road, was 16,393, as against 18,244 last year. The number of houses disinfected by the Disinfecting Officer was 1,575, as against 1,733 last year. In addition disinfection was carried out at the request of manufacturers, property owners, and others, for which charges were made amounting to £18 18s. 0d. The revenue from this source last year was £75 4s. 10d.

(B) PUBLIC MORTUARY AND CREMATORIUM.

During the past year 119 bodies have been deposited and 87 post-mortem examinations made.

The remains of 24 persons were cremated during 1921 at the Scholemoor Crematorium, in comparison with 20 during the previous year.

The following table, prepared by the Cremation Society of Great Britain, shows the number of Cremations carried out in Great Britain since the year 1885.

Table of Cremations carried out in Great Britain since the year 1885.

	1885-96.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	Total.
Woking ...	870	173	240	240	301	273	275	143	138	95	140	108	119	105	106	114	125	128	124	153	125	129	142	181	149	159	4855
Manchester ...	190	51	62	88	83	96	81	92	98	97	90	98	116	106	114	124	149	172	184	165	179	178	197	235	203	228	3476
Glasgow ...	11	16	12	16	20	18	20	24	19	35	44	30	28	30	28	39	44	49	57	63	71	67	74	84	80	87	1066
*Liverpool ...	2	10	27	23	40	40	54	35	40	35	46	34	32	46	37	50	52	66	48	54	58	62	69	89	69	75	1193
*Hull... ..	...	...	...	...	...	17	13	18	20	15	17	29	37	15	21	25	27	23	16	34	25	24	43	46	30	43	538
Darlington ...	...	...	...	...	...	1	2	1	7	4	13	8	6	9	9	12	15	11	11	16	10	15	17	26	18	20	231
Golder's Green...	...	...	...	...	...	...	5	158	220	252	298	290	364	421	415	542	591	602	671	730	633	719	820	919	851	893	10,394
*Leicester... ..	...	...	...	...	...	...	1	5	8	16	12	12	14	19	16	13	14	11	7	22	23	34	42	36	32	36	373
Birmingham ...	...	...	...	...	...	...	...	1	19	22	25	33	18	30	38	44	40	59	53	45	63	49	64	76	72	78	829
*Leeds ... ..	...	...	...	...	...	...	...	...	...	16	15	16	24	19	12	17	24	16	28	20	22	17	34	30	26	31	367
*Ilford... ..	...	...	...	...	...	...	...	...	..	9	23	18	19	24	22	20	32	21	42	45	43	68	70	68	58	57	639
*Bradford ... ..	...	...	...	...	...	...	...	...	...	1	14	13	6	13	14	13	9	15	18	12	11	10	20	31	20	24	244
*Sheffield ... ..	...	...	...	...	...	...	...	...	...	7	6	18	12	18	8	10	12	15	20	21	14	25	50	41	32	29	336
Norwood ... ..	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30	89	118	153	169	156	162	877
Total	1073	250	341	367	444	445	451	477	569	604	743	707	795	855	840	1023	1134	1188	1279	1410	1366	1515	1795	2031	1796	1922	25,418

* Municipally controlled.

APPENDIX.

TABLE I.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1921 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Numbers	NETT.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1916	271,105	4913	4918	16·67	4157	15·33	149	328	581	118	4336	15·99
1917	266,338	3901	3879	13·06	3960	14·87	172	297	513	132	4085	15·34
1918	259,707	3909	3871	13·30	4776	18·38	176	369	477	123	4969	19·13
1919	282,714	4083	4023	13·40	4553	15·80	131	265	454	113	4687	16·27
1920	293,979	6109	6033	20·52	3875	13·18	142	181	563	93	3914	13·31
1921	291,100	5743	5696	19·57	3967	13·63	140	167	619	109	3994	13·72

TABLE II.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1921.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.															TOTAL CASES REMOVED TO HOSPITAL.							
	At Ages—Years.							Allerton.	Bolton.	Bradford Moor.	East.	East Bowling.	Eccleshill.	Exchange.	Great Horton.	Heaton.	Idle.	Listerhills.	Little Horton.	Manningham.	North.	North Bierley East.		North Bierley West.	South.	Thornton.	Tong.	West.	West Bowling.	
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.																							65 and upwards.
Measles ...	2764	211	1470	1049	27	5	2	...	76	48	255	178	115	18	29	219	58	35	219	158	210	133	243	141	193	19	26	135	256	72
Smallpox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup) ...	367	10	68	200	51	31	6	1	13	10	74	26	24	16	6	26	23	8	12	15	21	16	4	5	23	...	5	6	34	295
Erysipelas ...	152	2	4	16	16	45	54	15	3	1	13	7	4	5	2	12	13	4	7	29	7	8	3	5	6	2	1	8	12	22
Scarlet Fever ...	990	2	137	668	134	44	4	1	24	27	88	38	60	41	10	89	48	30	48	80	71	27	39	30	35	59	7	36	103	835
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	21	...	...	5	5	5	4	2	1	...	...	2	5	...	1	3	...	...	...	1	...	...	1	...	4	...	1	...	...	15
Continued Fever ...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	40	...	...	...	15	25	...	...	...	...	2	3	5	2	...	...	...	...	...	11	5	1	...	...	3	...	1	...	...	7
Cerebro-Spinal Meningitis ...	7	1	1	2	2	1	...	...	...	...	...	1	...	...	...	2	1	...	...	2	...	...	...	...	...	...	...	...	...	6
Poliomyelitis ...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophth. Neonatorum ...	75	75	...	...	...	...	...	...	2	1	5	2	3	2	1	3	2	1	5	13	6	3	1	1	7	...	3	2	12	26
Pulmonary Tuberculosis ...	320	...	4	20	73	145	67	11	1	3	26	24	16	7	8	16	14	6	24	35	11	31	8	5	22	4	5	20	34	...
Other forms of Tuberculosis ...	93	3	11	26	20	26	5	2	...	3	6	5	7	3	1	6	1	...	3	11	9	8	4	1	9	2	1	4	8	...
Infective Enteritis...	400	142	200	19	5	15	13	6	3	2	30	39	20	5	7	12	1	11	33	51	18	55	2	2	56	...	1	14	38	2
Anthrax ...	4	...	...	...	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	1	...
Scabies ...	575	18	52	308	71	74	46	6	13	9	31	36	9	11	6	19	27	23	53	76	67	31	9	15	45	1	8	37	49	...
Polio-encephalitis ...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica ...	22	2	1	2	9	5	3	...	1	1	1	1	2	...	1	1	1	...	2	1	1	...	...	...	1	...	2	...	6	7
Pneumonia ...	553	37	76	60	91	164	92	33	7	4	26	22	10	11	3	19	11	17	31	156	20	20	8	1	20	2	19	12	134	3
Malaria ...	23	...	...	...	5	17	1	...	...	...	2	3	1	1	1	...	...	1	1	5	2	3	...	...	2	...	...	...	1	...
Dysentery ...	6	...	...	...	...	5	1	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	1	...
Whooping Cough ...	329	79	142	106	...	2	...	...	3	5	48	26	10	28	1	5	26	30	10	44	12	14	1	1	10	...	26	...	27	...
TOTALS ...	6743	582	2167	2482	525	610	299	78	148	116	607	413	292	150	77	432	226	166	450	694	460	352	323	208	436	89	106	278	720	1290

TABLE III.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1921.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT.
	All ages.	Under 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards.	
Enteric fever ...	3	...	...	...	...	1	1	...	1	3
Smallpox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	55	15	22	14	4	...	...	...	...	15
Scarlet fever ...	13	...	...	3	6	2	1	1	...	10
Whooping-cough ...	39	19	13	6	1	...	...	...	...	10
Diphtheria and croup	26	2	4	7	11	1	...	1	...	19
Influenza ...	56	6	...	2	2	2	12	13	19	5
Erysipelas ...	3	...	...	...	...	2	1	...	...	2
Phthisis (Pulmonary Tuberculosis) ...	268	1	3	2	5	51	109	81	16	117
Tuberculous Men- ingitis ...	27	5	8	3	5	4	2	...	...	9
Other tuberculous diseases ...	44	...	4	7	2	9	11	9	2	19
Cancer, malignant disease ...	397	...	...	...	...	3	39	182	173	108
Rheumatic fever ...	14	...	...	...	3	1	2	5	3	1
Meningitis ..	23	5	2	1	6	3	3	3	...	13
Organic Heart Dis- ease ...	353	1	1	1	4	9	55	120	162	73
Bronchitis ...	332	34	15	1	1	...	14	89	178	70
Pneumonia(all forms)	299	84	38	14	7	11	29	65	51	76
Other diseases of Res- piratory organs ...	65	1	3	...	4	...	4	20	33	16
Diarrhœa and En- teritis ...	80	45	11	1	2	1	5	6	9	23
Appendicitis and Typhlitis...	13	...	...	...	3	3	1	4	2	9
Cirrhosis of liver ...	10	...	...	...	...	...	1	8	1	4
Alcoholism ...	4	...	...	...	...	...	3	1	...	...
Nephritis and Bright's Disease...	118	3	1	1	1	3	22	51	36	30
Puerperal fever ...	15	...	...	...	...	4	10	...	1	12
Other accidents and Diseases of preg- nancy & parturition	17	...	...	...	...	2	15	...	...	13
Congenital debility and Malformation, including prema- ture birth ...	274	270	2	...	1	...	...	1	...	102
Violent deaths, ex- cluding Suicide ...	95	4	7	5	8	6	21	21	23	62
Suicides ...	37	...	...	...	...	1	14	15	7	6
Other defined dis- eases ...	1273	123	15	11	26	32	103	336	627	387
Diseases ill-defined or unknown ...	41	1	...	2	1	...	1	24	12	3
All causes ...	3994	619	149	81	103	151	479	1056	1356	1217

TABLE IV.

INFANT MORTALITY, 1921. NETT DEATHS FROM STATED CAUSES
AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
{ Small-pox .. ..	..	..	..	..	..	..	..	..	..	..
{ Chicken-pox .. ..	..	..	..	..	..	..	..	..	..	..
{ Measles .. ..	..	..	..	..	..	1	2	4	8	15
{ Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..
{ Whooping Cough .. ..	..	..	..	..	..	5	4	4	6	19
{ Diphtheria and Croup .. ..	..	..	..	..	..	..	1	..	1	2
{ Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..
{ Tuberculous Meningitis .. ..	..	..	..	..	..	1	..	3	1	5
{ Abdominal Tuberculosis .. ..	..	..	..	..	..	..	..	..	..	..
{ Other Tuberculous Diseases .. ..	..	..	..	..	..	..	..	1	..	1
{ Meningitis (<i>not Tuberculous</i>)	1	..	..	..	1	..	2	1	1	5
{ Convulsions	6	5	3	2	16	8	7	3	4	38
{ Laryngitis .. ..	..	1	..	..	1	..	..	..	..	1
{ Bronchitis .. ..	..	..	1	1	2	13	8	3	8	34
{ Pneumonia (all forms) .. ..	..	3	1	..	4	14	22	21	23	84
{ Diarrhœa .. ..	..	..	1	..	1	7	4	5	4	21
{ Enteritis .. ..	..	..	3	1	4	9	9	1	1	24
{ Gastritis .. ..	..	2	..	..	2	1	3	1	..	7
{ Syphilis	4	4	..	2	10	11	7	2	1	31
{ Rickets .. ..	..	..	..	..	..	..	1	..	1	2
{ Suffocation, overlying	1	..	..	..	1	1	..	..	..	2
{ Injury at birth	8	..	..	..	8	..	..	..	..	8
{ Atelectasis	7	..	..	..	7	..	..	..	..	7
{ Congenital Malformations	17	5	3	1	26	28	18	3	3	78
{ Premature Birth	103	12	8	8	131	9	1	..	..	141
{ Atrophy, Debility and Marasmus	12	4	7	1	24	14	9	..	1	48
{ Other Causes	11	3	1	..	15	8	9	6	8	46
All Causes ..	170	39	28	16	253	130	107	58	71	619

Nett Births in the year—Legitimate, 5,341; illegitimate, 355.

Nett Deaths in the year—Legitimate infants, 557; illegitimate infants, 62.

TABLE V.
PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.
Summary of Notifications during the period from 3rd January, 1921, to the 31st December, 1921.

AGE PERIODS.	NUMBER OF NOTIFICATIONS ON FORM A.											NUMBER OF NOTIFICATIONS ON FORM B.			NUMBER OF NOTIFICATIONS ON FORM C.		
	Primary Notifications.											Total Notifications (<i>i.e.</i> , including cases previously notified by other doctors).	Total Notifications (<i>i.e.</i> , including cases previously notified by other doctors).	Poor Law Institutions	Sanatoria		
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total				Under 5	5 to 10	10 to 15	Total
Pulmonary																	
Males ..	—	2	2	7	11	21	29	50	31	24	10	187	208	—	—	2	235
Females ..	—	2	3	8	13	28	38	28	11	1	1	133	155	—	—	6	224
Non-pulmonary																	
Males ..	1	6	9	9	3	9	8	8	4	1	—	58	65	—	—	—	37
Females ..	2	5	4	4	4	4	7	3	—	—	2	35	40	—	—	2	15

ANNUAL REPORT
OF THE
SCHOOL MEDICAL OFFICER
1921.

CITY OF BRADFORD.

REPORT OF THE SCHOOL MEDICAL
OFFICER, 1921.

1. **STAFF.**—The staff engaged in school medical work at the end of 1921 consisted of the School Medical Officer, the Deputy Medical Officer, six whole time Medical Officers, a part-time Ophthalmic Surgeon, a part-time Laryngologist and Aurist, a part-time Orthopædic Surgeon, and a part-time Radiologist, a chief School Dentist, and three assistant Dentists, five Remedial Gymnasts, and twenty School Nurses.

2. **SCHOOL HYGIENE.**—143 Medical Inspections of Schools were carried out by the School Medical Staff during the year 1921, with the following results :—

SCHOOL BUILDINGS.

	Satisfactory.	Unsatisfactory.	Total.
Walls and Floors	111	32	143
Ventilation	125	18	143
Lighting	120	23	143
Heating	138	5	143
Furniture	128	15	143
Lavatories	137	6	143
Towels	143	—	143
Drinking Cups	143	—	143
Cloakroom	127	16	143
Playground	113	30	143
W.C.'s	119	24	143
Urinals	132	11	143

3. **MEDICAL INSPECTION.**—(a) The classes of children medically inspected in 1921 in Bradford with the numbers in each class so examined are as follows :—

(1) Children admitted for the first time during the year (Entrants)	3878
(2) Children 8 years of age (Intermediates)	3871
(3) Children expected to leave school during the year (Leavers)	3047
(4) Children attending Council Secondary Schools and Bradford Grammar School	3044
(5) Candidates for Secondary Schools	1250
(6) Children attending Nursery Schools	241

(7) Children attending Special Schools	320
(8) Candidates for Street Trading Licences	21
(9) <i>Re</i> Half Time Employment	2
(10) <i>Re</i> Employment at Theatres	54
	<hr/>
Total	15728

(b) There has been no material departure made in the Board's schedule of inspections.

(c) Crippling defects are in a large number of cases recognised in Bradford before the child arrives at school age through the agencies of notification, health visitors, maternity and child welfare centres, and the like. On admission to school all such crippling defects are notified by the school teachers and the children examined at once. A census of children not attending any school from any cause is made each year and these children are kept under medical supervision.

(d) Little or no disturbance of the school arrangements is caused by the medical inspection which is always done on the school premises. The accommodation at many of the schools is unsatisfactory for detailed medical examination in certain cases, but where such cases occur, a further medical examination is made at one of the school clinics.

4. FINDINGS OF MEDICAL INSPECTION.—The results of medical inspections are shown fully in the tables at the end of this report. From Table II. it will be seen that amongst the 12,046 Elementary School Children examined at the Routine Inspections, excluding uncleanliness, 2,745 defects or an average of 0.23 per child were referred for medical treatment, while 4,847 other defects or 0.4 per child were kept under observation as not requiring immediate treatment. Amongst the 3,044 Secondary School Children examined, 921 defects, or an average of 0.3 per child were referred for Medical Treatment, while 1,192 other defects, or 0.39 per child were kept under observation.

Amongst the special cases, the number of defects observed was, of course, much larger.

It will also be seen that Nurses visited each school every 17 days during the year and made 99,073 examinations for cleanliness, 1,854 children being found defective in this respect.

5. FOLLOWING UP.—When a child is found in school presenting a physical defect, the parents or guardians are informed and advised to obtain treatment for it. At the Medical Inspections of School Children a list of defects is recorded, from which the necessary appointments for treatment are made. This list is afterwards kept for the purpose of following the cases up, keeping cases under observation, and recording the result and date of treatment.

Systematic re-inspection and home visitation is undertaken by the Nurses to follow up all cases.

(a) RECORD VISITS FOR 1921.

(1) Visits to Schools	..	..	..	..	3307
(2) Children Examined	..	..	..	..	99997
(3) Visits to Homes	..	..	..	..	3286

(b) DEFECTS DISCOVERED.

(1) Ringworm	..	..	249	(6) Vermin	..	..	1854
(2) Running Ears	..	..	400	(7) Nits only	..	..	8681
(3) Sore Eyes	..	..	621	(8) Scabies	..	..	217
(4) Sores on Skin	..	..	1318	(9) Squint	..	..	390
(5) Infectious Diseases	..	..	160	(10) Minor Injuries	..	..	957

6. MEDICAL TREATMENT.—There are three School Clinics in Bradford, a central clinic Great Horton Road, and branch clinics at the Green Lane and Lapage Street schools. Under the scheme of co-ordination of medical work, arrangements have been made for the treatment of certain defects mentioned below, at the City Hospital, Leeds Road, the Tuberculosis Dispensary, and the Ophthalmic Department.

Treatment is available for the following defects at the places named :

- (a) Minor ailments School Clinics.
- (b) Tonsils and Adenoids .. Special Hospital, Leeds Road.
- (c) Tuberculosis Tuberculosis Dispensary.
- (d) Skin Disease School Clinics.
- (e) External Eye Disease .. School Clinics and Hospital, Leeds Road.
- (f) Vision School Clinics and Ophthalmic Department.
- (g) Ear Disease and Hearing .. School Clinics and City Hospital.
- (h) Dental Defects Dental Clinic, Central School Clinic.
- (i) Crippling Defects and .. Central School Clinic and School for Orthopædics .. Physical Defectives, Lister Lane.

The cases that have attended the School Clinics since 1908 are shown in the following Table :—

Year.	Number Treated	Examined only.	Total Attendances.	Attendances per Week.
1908	841	590	4050	122
1909	2323	1325	14516	329
1910	3520	2772	19315	439
1911	5019	2655	20325	462
1912	6279	3095	25579	581
1913	8004	4333	34940	791
1914	13991	4155	46982	1068
1915	12469	2769	43346	985
1916	14559	3552	38051	865
1917	12890	3056	44289	1006
1918	9954	3164	35256	801
1919	16459	4177	44876	1019
1920	22114	5894	61565	1502
1921	25460	6364	75209	1791

(A) INSPECTION CLINIC.—There were 6,364 children who attended the Clinic in 1921 for the purpose of examination only. These children may be divided into four groups:—

	<i>Elem.</i>	<i>Secv.</i>
(1) Children attending for examination in connection with Medical Inspection and School Attendance	4657	306
(2) Children examined as to their suitability for admission to Secondary Schools	1250	—
(3) <i>Re</i> Bursarships	—	62
(4) From School of Art (Routine Medical Inspection)	—	89

The conditions found in 4,963 children who attended in connection with Medical Inspection and School Attendance are shown in the following table:—

EXAMINATION IN CONNECTION WITH MEDICAL INSPECTION AND
SCHOOL ATTENDANCE, 1921.

Disease	No. of Children.		Total Attendances.	
	Elementary Schools.	Secondary Schools.	Elementary Schools.	Secondary Schools.
Malnutrition	165	6	198	7
Uncleanliness :				
Head	10	—	10	—
Body	3	—	5	—
Mental Condition	101	—	114	—
Skin :				
Head	34	1	55	3
Body	2	—	2	—
Scabies	7	1	7	1
Impetigo	—	—	3	—
Other Diseases (non-tub.)	11	1	16	1
Eye :				
Blepharitis	4	1	6	1
Conjunctivitis	5	—	6	—
Keratitis	1	—	1	—
Corneal Ulcer	2	—	2	—
Corneal Opacities	—	—	—	—
Defective Vision	318	79	386	85
Squint	38	1	41	1
Other conditions	10	—	12	—
Ear :				
Defective Hearing	49	11	58	12
Otitis Media	107	4	128	5
Other Ear Diseases	98	3	136	4
Nose and Throat :				
Enlarged Tonsils	261	11	279	12
Adenoids	149	7	265	7
Enlarged Tonsils and Adenoids	342	19	433	31
Other conditions	148	2	179	2
Enlarged Cervical Glands (Non-Tub.)	70	4	80	4
Defective Speech	12	1	12	1

EXAMINATION IN CONNECTION WITH MEDICAL INSPECTION AND
SCHOOL ATTENDANCE, 1921—(Continued).

Disease.	No. of Children.		Total Attendances.	
	Elementary Schools.	Secondary Schools.	Elementary Schools.	Secondary Schools.
Heart and Circulation :				
Heart Disease—Organic	21	3	26	3
Functional	14	1	20	4
Anæmia	592	32	666	45
Lungs :				
Bronchitis	341	8	395	8
Other Non-Tub. Diseases	23	—	31	—
Tuberculosis :				
Pulmonary—Definite	16	1	38	1
Suspected	51	1	57	2
Non-Pulmonary—Glands	9	1	11	1
Spine	—	—	—	—
Hip	3	—	3	—
Other bones and joints	1	—	1	—
Skin	—	—	1	—
Other Forms	7	2	8	2
Nervous System :				
Epilepsy	27	3	30	5
Chorea	61	3	88	4
Other conditions	20	5	32	6
Deformities :				
Spinal Curvature	15	3	17	3
Rickets	36	2	48	2
Other Forms	25	1	28	1
Minor Injuries	31	2	32	2
Infectious Diseases	293	9	340	10
Miscellaneous	852	65	1057	92
No Defect found	272	12	280	12
Totals	4657	306	5643	380

The following table shows the examinations made in connection with Special Schools, transference to Convalescent Homes, and Employment of Children. These have been analysed under the defects found or no defect found and are all included in the above table.

Object of Examination.	Number of Children.	Total attendances.
Transference to Special Schools (Mentally Defective)	105	124
Do. (Blind, Deaf, and Crippled)	40	40
Do. (Classes for Stammerers)	7	7
Transference to Thackley Open-Air School ...	323	345
Transference to Convalescent Homes	476	481
Continued Attendance at Infants' Schools ...	21	21
Employment at Theatres	54	55
Half Time Employment	2	2
Street Trading Licences	21	21
Total	1049	1096

Of the 476 children examined *re* Transference to Convalescent Homes 247 were for the Craig Home, Morecambe.

159 for the Federation of Young People's Societies' Camp at Pinewood.

68 for the Bradford Dyers' Association, Ltd., Convalescent Home, Silverdale, instituted as a Memorial to perpetuate the memory of the Employees of the Bradford Dyers' Association, Ltd., who fell in the European War, 1914-1918, and to those who lost their lives in the disaster at the works of the Low Moor Munitions Company, Limited, in 1916.

(B) TREATMENT CLINICS.—There were 24,075 children from the Elementary Schools and 1,385 from the Secondary Schools who attended the Clinics in 1921 for treatment. The conditions from which these children suffer are shown in the following Table :—

CASES TREATED DURING THE YEAR 1921.

Disease.	Number of Children.		Total Attendances.	
	Elementary Schools.	Secondary Schools.	Elementary Schools.	Secondary Schools.
Malnutrition	257	5	297	7
Uncleanliness :				
Head	351	—	626	—
Body	28	—	57	—
Mental Condition	4	1	10	1
Skin :				
Head	612	19	3720	141
Body	250	12	1312	43
Scabies	378	13	1032	39
Impetigo	1416	41	8192	255
Other Diseases (Non-Tub.) ...	872	62	3506	220
Eye :				
Blepharitis	352	20	1613	68
Conjunctivitis	364	14	1996	62
Keratitis	51	1	115	3
Corneal Ulcer	30	—	125	—
Corneal Opacities	14	—	41	4
Defective Vision	1932	335	3104	605
Squint	168	3	217	4
Other conditions	240	21	1022	38
Ear :				
Defective Hearing	76	2	156	8
Otitis Media	236	26	2251	101
Other Ear Diseases	218	9	703	15
Nose and Throat :				
Enlarged Tonsils	121	8	194	17
Adenoids	54	2	111	4
Enlarged Tonsils and Adenoids ...	152	24	754	137
Other conditions	262	16	456	24
Enlarged Cervical Glands (Non-Tub.)	273	17	842	43
Defective Speech	—	—	2	—

CASES TREATED DURING THE YEAR 1921—(continued).

Disease.	Number of Children.		Total Attendances.	
	Elementary Schools.	Secondary Schools.	Elementary Schools.	Secondary Schools.
Heart and Circulation :				
Heart Disease—Organic	4	—	6	—
Functional	1	2	5	4
Anæmia	372	16	529	58
Lungs :				
Bronchitis	272	6	383	19
Other Non-Tub. Diseases	35	2	57	2
tuberculosis :				
Pulmonary—Definite	3	—	5	—
Suspected	—	—	—	—
Non-Pulmonary—Glands	13	—	23	—
Spine	—	—	—	—
Hip	—	—	—	—
Other Bones and Joints	—	—	1	—
Skin	1	—	1	—
Other Forms	4	—	4	—
Nervous System :				
Epilepsy	—	—	—	—
Chorea	8	2	197	20
Other conditions	10	—	17	1
Deformities :				
Rickets	30	2	340	45
Spinal Curvature	60	16	1438	483
Other Forms	94	28	2523	556
Minor Injuries	1690	104	7817	435
Infectious Diseases	34	—	56	—
Miscellaneous	1745	73	4476	174
Teeth :				
Cases treated by appointment ...	8185	218	9756	353
Emergency Cases (casuals) ...	2803	235	3398	274
Total	24075	1385	63496	4263

MEDICAL GYMNASTICS AND MASSAGE.

CASES TREATED AT THE CENTRAL CLINIC DURING 1921.

Disease.	Number	Disease.	Number.
Scoliosis 48 ..	74	Rickets	12
Kyphosis 23 ..		Heart	3
Lordosis 3 ..		Contractions from scar	2
Foot Deformities	42	Rheumatism	2
Fractures and Sprains ..	12	Chorea	3
Chest Deformities ..	16	Anæmia	1
Torticollis	2	Post Tonsilectomy Cases	73
Stunted Growth	2		
Paralysis	26		

Number of individual children during 1921	..	..	..	270
Number of attendances during 1921	..	..	..	6019
Number of children discharged cured	..	..	..	112
Number of children discharged improved	..	..	..	22
Children referred to Special Schools	..	..	..	22
Cases carried forward for treatment during 1922	..	..	..	114
Children sent for but did not attend or parent refused treatment				48

During the year Special Classes consisting of breathing exercises and chest expansions have been started for post Tonsil and Adenoids cases, and it has been found that after a few weeks treatment, breathing has in most cases greatly improved.

TINEA (RINGWORM) OF THE HEAD.

X-RAY TREATMENT.

The number of cases treated for Ringworm of the Head in 1921 was 182 as against 161 in 1920. The average period from treatment to date of re-admission to School was 21.46 days as against 22 days in 1920, 23 days in 1919, and 31 days in 1918.

The number on the waiting list for this treatment on the 31st December, 1921, was 3. The cases treated from 30th September, 1920, to 30th September, 1921, have been re-inspected, and the re-growth of hair has been most satisfactory. No case of recurrent ringworm after this treatment has yet been reported.

DENTAL REPORT.

By B. NORTH, L.D.S.

There has been a considerable advance in the work at the Clinic during the present year. No changes of staff have taken place and the organisation has steadily improved. Altogether 10,109 children have been dealt with by appointments. Only a little more than one half-day per week is spent by each dentist in school inspection, leaving a maximum amount of time for operative work at the Clinic, and this accounts for the large amount of work done. During the year 22,975 children have been inspected, and of those 18,054 needed treatment, or about 78%. From July of last year a systematic inspection of children in the Secondary Schools was undertaken. The children inspected up to 13 years of age in these Secondary Schools numbered 1,603. Incidentally it may be pointed out that when dental defects have been indicated a good proportion are quite ready to have the work done by their own private dentists. In the past appointments have been made for Saturday mornings to suit the convenience of particular patients, but this year the experiment was tried of making regular appointments for Saturdays. So far, however, the attendance has not been satisfactory, only about half the appointments being kept.

In 1921 the gas cases numbered 941 and the attendance has been very satisfactory. The cases are referred for extraction under gas for two reasons :—(1) because there are several septic teeth prejudicing the health of the child ; or (2) the teeth are crowded and irregular. Many of the first class are referred by the doctors, and it is of course absolutely essential that the offending teeth should be removed. As a rule efforts are made to save every possible decayed tooth, both of the first and second dentition ; when a tooth is decayed but not septic, it is treated for preservation even though it may only be useful for a comparatively short period. In the cases where extractions under gas are made for regulation purposes, it is pleasing to observe the great improvement which frequently takes place both in usefulness and good appearance.

That this anæsthetic branch of the clinic work is appreciated is shown by the fact that 90% of the patients keep their appointments.

SUMMARY OF WORK.

Children treated by appointment	..	..	..	..	10109
Number of permanent teeth extracted	..	..	..	..	1369
Number of permanent teeth filled	..	..	..	..	6819
Number of temporary teeth extracted	..	..	..	..	10412
Number of temporary teeth filled	..	..	..	..	3714
Number of gas cases	..	..	..	..	941
Scaling, dressings, etc., in permanent teeth			..	..	1390
Scaling, dressings, etc., in temporary teeth	..	..	..	..	1489

SUMMARY OF WORK FOR CASUALS.

Number of children treated	..	..	..	..	3672
Number of permanent teeth extracted	..	..	..	..	659
Number of permanent teeth filled	..	..	..	..	305
Number of temporary teeth extracted	..	..	..	..	3353
Number of temporary teeth filled	..	..	..	..	249
Dressings, etc., in permanent teeth	..	..	..	..	465
Dressings, etc., in temporary teeth	..	..	..	..	428

SPECIAL OPHTHALMIC CASES.

John A. Mortimer, M.D., M.R.C.P., Consulting Ophthalmic Surgeon, left the services of this Authority in August, 1921. George Oliver, L.R.C.P., M.R.C.S., L.S.A., commenced 1st September, 1921.

1. Cases treated during the year :—

Cases brought forward from 1920 :

				<i>Children.</i>	<i>Attendances.</i>
(a) From School Clinics	...	...	...	40	107
(b) From Myope School	...	...	...	3	3
(c) From Odsal House School	...	...	...	1	1
				—	—
Totals	...	...	...	44	111
				==	==

	<i>Children.</i>				<i>Attendances.</i>
New cases for the year :					
(a) From School Clinics	174	424
(b) From Myope School	9	11
(c) From Odsal House School	6	16
				<hr/>	<hr/>
Totals	189	451
				<hr/>	<hr/>
Total number of children treated	233
Total number of attendances	562
2. Cases of Refractions from School Clinics	119
Cases of Refractions from Myope School	9
					<hr/>
Total	128
					<hr/>
3. In-patients (Leeds Road Hospital, Eye Department)	43
4. Eye Operations performed in the year 1921 :—					
Operations for Squint	7
Advancement with Tenotomy	5
Optical Iridectomy	5
Advancement	8
Conjunctivitis	2
Other operations	11
					<hr/>
Total	38
Decision declined	5
					<hr/>
Total referred for operations	43
					<hr/>

ORTHOPÆDIC CASES.

During the year 20 children have received operative treatment, 46 children have received other than operative treatment at the Special Hospital, Leeds Road.

7. OPEN-AIR EDUCATION.—For the past eight years, during the Summer months, school camps have been in operation. In 1920 and 1921 there were four of these camps, and for the six years previous to 1920 there were three. Different Public Elementary Schools occupy these for one week in rotation.

At the Thackley Open-Air School children are taught who through failing health and nutrition require special supervision of their feeding, hours of rest, exercise and school work. These children have received much benefit from this procedure. The particulars for the year 1921 are as follows :—

Number of Scholars on register 1st January, 1921	...	230
Number of Scholars admitted during the year 1921	...	355
Number of Scholars discharged during the year 1921	...	369
Number of Scholars on register 31st December, 1921	...	216
Average number present during the year	...	180.5
Average number of children in residence during the year	...	16

8. **BLIND, DEAF, DEFECTIVE, AND EPILEPTIC CHILDREN.**—Children suffering from any defect of special senses or any mental or physical peculiarity, are noted by the medical officer at the routine inspection or brought under notice by the nurse at her visits to the schools or are reported for examination by the school attendance officers and school teachers. Further, many of these children are now coming under notice prior to school life through the Child Welfare Organisation.

(a) *Odsal House Blind School.*

There were 35 children on the register of this school on the 1st January, 1921. During the year 7 children were admitted and 12 discharged, leaving at the end of the year 30. Of the 12 discharged 2 boys and 4 girls were transferred to the Myope School, 1 girl was transferred to Nottingham Institution for the Blind, 1 girl to the Normal College for the Blind, Norwood, and 3 boys and 1 girl left the school for work at 16 years of age.

				Boys.	Girls.
Number on register 1st January, 1921	..	..	33	..	30
Number admitted during 1921	..	..	12	..	16
Number re-admitted during 1921	...	...	—	...	1
Number discharged during 1921	..	..	6	..	10
Number on register 31st December, 1921	..	..	39	..	37
Children who have left during 1921 :				Boys.	Girls.
(1) Certified fit for an Ordinary School	..	..	1	..	1
(2) Went to Work at 14 years of age	..	..	3	..	5
(3) Went to Work at 15 years of age	..	..	2	..	3
(4) Went to Work at 16 years of age	...	...	—	..	1
Totals				6	10

				Boys.	Girls.
Number on register 1st January, 1921	...	...	15	...	14
Number admitted during 1921	...	...	8	...	6
Number discharged during 1921	...	...	4	...	2
Number on register 31st December, 1921	...	...	19	...	18
Children who have left during 1921 :					
(1) Transferred to Hearing Schools	...	...	1	...	1
(2) Went to Work at 16 years of age	...	...	3	...	1
Totals				4	2

(d) *Lister Lane School for Physical Defectives.*

The children admitted to this school are those who present some defect in the bony, muscular, or nervous system affecting function, the parts affected being most frequently the legs, arms, or spinal column ; or those who suffer from severe incapacity arising from congenital or acquired defects of the heart. These children are unable to benefit from an educa-

tion in an ordinary elementary school from chiefly three causes, namely, their difficulty in getting to and from the school, the need of special means for sitting or resting in the school, and their need of special individual tuition. They are brought under very detailed medical care at the Lister Lane School, where they are seen weekly by the Medical Officer and a consulting orthopædic surgeon, and where there is a staff of nurses and masseuses. There were 148 children on the school roll of whom 56 were in residence, and the remainder travel to and from school by motor ambulance or special tramcar.

Out of the 148 children on the school register, 68 were boys and 80 girls. The following is a list of the defects found and the number of children suffering from each defect :—

Crippling due to	Boys		Girls		Total
	Aged 5 to 10	11 to 15	Aged 5 to 10	11 to 15	
(a) Tuberculosis	6	9	10	9	34
(b) Infantile Paralysis ..	8	9	7	12	36
(c) i. Congenital					
Deformity	6	10	2	14	32
ii. Trauma	3	1	0	2	6
iii. Other causes ..	3	5	6	2	16
Defects of the heart ..	0	8	6	10	24

During the year 21 boys and 30 girls were admitted, 31 boys and 21 girls were discharged. Of the 52 discharged, 18 boys and 10 girls were fit to attend an ordinary school, 1 boy unfit to attend any school, 6 boys and 7 girls left for employment at 16 years of age, 2 boys and 1 girl left the City, 2 boys and 2 girls were transferred to a Sanatorium, and 2 boys and 1 girl deceased.

(e) *Classes for Stammerers.*

There are two special classes for stammering children at Wibsey and Lister Lane Schools. The following table shows the results in the children dealt with during 1921 :—

SPEECH RESULT.

School.	Cured.	Improved		No change.	Total.
		Greatly.	Slightly.		
Wibsey	0	12	4	2	18
Lister Lane	5	13	3	0	21

A daily record is kept of each child's speech at the Stammering Centre and an effort is made to obtain from the parents a similar record of the child at home. When the child shows improvement he is sent to his own school each day for a short time, which, if the school teacher's report is satisfactory, is gradually lengthened until discharge as a stammerer.

(f) *The Mentally Defective School.*

The numbers of children attending the Margaret McMillan School for mentally defectives are shown in the following tables :—

	On register 1st January, 1921.	Admitted.	Discharged.	On Register 31st December 1921.
Boys	100	14	26	88
Girls	79	8	18	69
Totals	179	22	44	157

Boys who have left during the year 1921 :

(1) Transferred to Institution for Mentally Defectives ..	9
(2) Transferred to Lister Lane P.D. School—resident ...	1
(3) Certified Imbecile—at home	2
(4) Placed under guardianship of parents	4
(5) Discharged physically unfit	1
(6) Left school at 16 years of age	8
(7) Deceased	1
Total	26

Girls who have left during the year 1921 :

(1) Certified fit for an Elementary School	1
(2) Transferred to Institution for Mentally Defectives ..	3
(3) Left school at 16 years of age	11
(4) Left the City	2
(5) Deceased	1
Total	18

(g) *Pulmonary Tuberculosis.*

During the year 71 boys and 65 girls have attended the School at Grassington Sanatorium for suspected and definite Tuberculosis. The numbers discharged were 49 boys and 50 girls, leaving in residence on December 31st, 22 boys and 15 girls.

9. NURSERY SCHOOLS.—There are now three Nursery Schools in the City, the Princeville School having been opened during the early part of 1921.

The Medical Staff acts in close association with the Education Staff in connection with the general arrangements, equipment, and dietary provided. A careful medical supervision of the children attending has been kept and great improvement was noted amongst them. The Assistant School Medical Officer attends one half-day per week at the St. Ann's School and one half-day per fortnight at the Lilycroft and Princeville Schools. The class of children attending the St. Ann's School being much

poorer than those attending the other schools require greater medical attention. Treatment of the children is carried out at the school by the Nurse. Particulars of defects found, together with the results, are given in Table XII.

10. SECONDARY AND CONTINUATION SCHOOLS.—In Secondary Schools there have been two Medical Officers employed, who have carried out regular inspections and made reports to the Committee. The work has greatly increased in volume during the year 1921, and is referred to in the tables and body of the report.

11. STATISTICS.—The numbers of scholars on the registers of the Schools in the City on June 30th, 1921, were as follows :—

	Number of Children on Register.	Average Attendances.
Elementary Schools	37571	31481
Secondary Schools	4129	3819
Central Classes	357	328
Special Schools	740	611
Nursery Schools	128	93
Totals	42925	36332
Number of Half-timers		800

TABLE I.

NUMBER OF CHILDREN INSPECTED—1st JANUARY, 1921 TO 31st DECEMBER, 1921.

A. ROUTINE MEDICAL INSPECTION.

Age.	ENTRANTS.					
					Other Ages.	Total.
	3	4	5	6		
Boys	170	467	859	397	108	2001
Girls	180	418	823	349	107	1877
Totals	350	885	1682	746	215	3878

TABLE I.—*Continued.*

Age.	Inter- mediate Group.	Leavers.				Total.	Grand Total.
	8	12	13	14	Other Ages.		
Boys ..	1914	951	373	24	101	1449	3363
Girls ..	1957	1141	378	18	61	1598	3555
Totals	3871	2092	751	42	162	3047	6918

Age.	Bursars.				Secondary Schools.							Grand Total.
	15	16	17	Total.	11	12	13	14	15	16 & over	Total.	
Boys ..	2	3	—	5	5	409	379	334	194	126	1447	1452
Girls ..	—	39	17	56	17	484	403	325	155	152	1536	1592
Totals	2	42	17	61	22	893	782	659	349	278	2983	3044

		Candidates for Secondary Schools.					
Age.		9	10	11	12	13	Total.
Boys	—	319	277	79	—	675
Girls	—	261	235	79	—	575
Totals	—	580	512	158	—	1250

		Nursery Schools.			
Age.		2	3	4	Total.
Boys ..	..	56	49	29	134
Girls ..	..	37	47	23	107
Totals ..	..	93	96	52	241

TABLE I.—*Continued.*

Age.	Special Schools.												Total.
	5	6	7	8	9	10	11	12	13	14	15	16	
Boys ..	3	—	7	18	12	23	25	28	21	14	17	4	172
Girls ..	1	3	3	10	23	14	21	26	17	13	16	1	148
Totals	4	3	10	28	35	37	46	54	38	27	33	5	320

B.—SPECIAL INSPECTIONS.

Elementary Schools.	Special Cases.	Re-examinations (<i>i.e.</i>) No. of children re-examined.
Boys and Girls	17746	15224
Secondary Schools.		
Boys and Girls	1238	1026

C. Total number of individual children inspected by the Medical Officer, whether as Routine or Special Cases (no child being counted more than once in one year.)

NUMBER OF INDIVIDUAL CHILDREN INSPECTED.

Elementary Schools	30353
Secondary Schools	4282
Total	<u>34635</u>

TABLE II.

RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL INSPECTION IN 1921.

Defect or Disease.	Routine Inspections.				Specials.			
	Elementary Schools.		Secondary Schools.		Elementary Schools.		Secondary Schools.	
	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.
MALNUTRITION	21	385	1	200	315	92	9	2
UNCLEANLINESS :								
Head	95	897	7	103	250	6	—	—
Body	125	761	—	—	28	3	—	—
SKIN :								
Ringworm of Head ..	27	—	—	—	588	11	20	—
„ „ Body ..	17	—	2	—	239	—	12	—
Scabies	55	—	1	—	351	1	13	1
Impetigo	43	1	3	—	1379	—	41	—
Other Diseases (non-T.B.)	121	40	15	5	848	11	63	—
EYE :								
Blepharitis	37	3	8	4	311	3	21	—
Conjunctivitis	10	2	4	1	358	4	14	—
Keratitis	1	—	—	—	50	1	1	—
Corneal Ulcer	4	—	1	—	29	—	—	—
Corneal Opacities ..	5	—	—	—	9	—	—	—
Defective Vision ..	889	885	394	190	1294	74	91	29
Squint	67	24	12	2	103	11	3	—
Defective Colour Sense..	—	—	—	36	—	—	—	—
Other Conditions ..	14	3	7	1	229	7	21	—
EAR :								
Defective Hearing ..	34	19	37	24	59	41	7	6
Otitis Media	65	15	12	7	197	92	26	4
Other Ear Diseases ..	15	5	22	12	234	80	12	—
NOSE AND THROAT :								
Enlarged Tonsils ..	377	1089	76	264	143	94	15	4
Adenoids	64	132	3	15	112	44	5	4
Enlarged T. and A. ..	95	47	2	1	328	109	39	4
Other conditions ..	45	147	9	8	295	93	17	1
ENLARGED CERVICAL GLANDS	54	86	31	71	251	63	18	3
DEFECTIVE SPEECH ..	5	103	—	13	7	5	—	1
HEART AND CIRCULATION :								
Organic	19	52	3	24	3	13	—	1
Functional	29	27	9	28	5	10	2	23
Anæmia	195	250	64	70	500	371	25	4

TABLE II.—Continued.

RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL INSPECTIONS IN 1921.

Defect or Disease.	Routine Inspections.				Specials.			
	Elementary Schools.		Secondary Schools.		Elementary Schools.		Secondary Schools.	
	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.	No. referred for treatment.	No. requiring to be kept under observation but not referred for treatment.
LUNGS :								
Bronchitis	149	375	3	11	315	211	10	1
Other Non-T. B. diseases	22	33	1	5	25	18	2	1
TUBERCULOSIS :								
Pulmonary Definite ..	7	1	—	—	6	9	—	—
„ Suspected ..	9	1	1	1	33	11	—	—
Glands	17	6	6	3	3	6	2	—
Spine	—	—	2	1	—	—	—	—
Hip	2	—	2	1	2	1	—	—
Other bones and joints	—	3	2	—	—	1	—	—
Skin	—	—	1	—	1	—	—	—
Other forms	—	1	—	—	7	4	—	2
NERVOUS SYSTEM :								
Epilepsy	3	7	2	1	7	19	1	2
Chorea	7	2	1	1	31	33	2	3
Other conditions ..	3	7	4	25	25	15	1	4
DEFORMITIES :								
Rickets	45	74	3	15	16	18	3	1
Spinal Curvature ..	28	49	90	47	51	5	18	1
Other forms	39	140	46	53	84	10	29	—
MENTAL CONDITION ..	5	147	—	—	20	81	1	—
INFECTIOUS DISEASES ..	17	2	1	—	92	235	2	7
OTHER DEFECTS AND DISEASES	84	684	40	52	3628	649	199	45
TOTALS	2965	6505	928	1295	12861	2565	745	154
NUMBER OF INDIVIDUAL CHILDREN HAVING DEFECTS WHICH REQUIRED TREATMENT OR TO BE KEPT UNDER OBSERVATION ..	2588	5692	773	1079	8891	1677	494	130

TABLE III.

NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA
IN 1921.

	Boys	Girls	Total
BLIND (including partially blind) within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.			
Attending Public Elementary Schools ..	16	20	—
Attending Certified Schools for the Blind ..	48	58	106
Not at School	—	—	—
DEAF AND DUMB (including partially deaf) within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.			
Attending Public Elementary Schools ..	—	—	—
Attending Certified Schools for the Deaf ..	19	18	37
Not at School	—	—	—
MENTALLY DEFICIENT :—			
Feeble-minded—			
Attending Public Elementary Schools ..	—	—	—
Attending Certified Schools for Mentally Deficient Children	88	69	157
Notified to the Local Control Authority by the Local Education Authority during the year	20	14	34
Not at School	5	6	11
Imbeciles—			
At School	—	—	—
Not at School	1	2	3
In Institutions other than Certified Schools ..	6	2	8
Idiots	—	2	2
EPILEPTICS :—			
Attending Public Elementary Schools ..	—	—	—
Attending Certified Schools for Epileptics ..	4	3	7
In Institutions other than Certified Schools..	5	2	7
Not at School	3	2	5

TABLE III.—*Continued.*

	Boys	Girls	Total
PHYSICALLY DEFECTIVE :—			
Pulmonary Tuberculosis—			
Attending Public Elementary Schools ..	—	—	—
Attending Certified Schools for Physically Defective Children	22	15	37
In Institutions other than Certified Schools..	—	—	—
Not at School	4	6	10
Crippling Due to Tuberculosis—			
Attending Public Elementary Schools ..	—	—	—
Attending Certified Schools for Physically Defective Children	15	19	34
In Institutions other than Certified Schools..	—	—	—
Not at School	8	7	15
Crippling Due to Causes other than Tuberculosis, <i>i.e.</i> , Paralysis, Rickets, Traumatism—			
Attending Public Elementary Schools ..	55	67	132
Attending Certified Schools for Physically Defective Children	37	37	74
In Institutions other than Certified Schools..	1	1	2
Not at School	12	14	26
Other Physically Defectives, <i>e.g.</i> , Delicate and other Children Suitable for Admission to Open-Air Schools; Children Suffering from Severe Heart Disease—			
Attending Public Elementary Schools ..	33	21	54
Attending Open-Air Schools	107	109	216
Attending Certified Schools for Physically Defective Children other than Open-Air Schools	16	24	40
Not at School	7	12	19
DULL OR BACKWARD :—			
Retarded 2 years	21	13	34
Retarded 3 years	27	18	45

TABLE IV.
TREATMENT OF DEFECTS OF CHILDREN DURING 1921.
A.—TREATMENT OF MINOR AILMENTS.
ELEMENTARY SCHOOLS.

Defect or Disease.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise	Total.
SKIN :				
Ringworm of Head ..	615	612	2	614
Ringworm of Body ..	256	250	4	254
Scabies	406	378	4	382
Impetigo	1422	1416	5	1421
Minor Injuries ..	1696	1690	4	1694
Other Skin Diseases ..	969	872	9	881
EAR DISEASE	604	530	17	547
EYE DISEASE :				
(External and other) ..	1137	1051	11	1062
MISCELLANEOUS	1973	1745	26	1771
Totals ..	9078	8544	82	8626

TABLE IV. A. SECONDARY SCHOOLS.

Defect or Disease.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise	Total.
SKIN :				
Ringworm Head ..	20	19	—	19
Ringworm Body ..	14	12	—	12
Scabies	14	13	—	13
Impetigo	44	41	1	42
Minor Injuries ..	118	104	3	107
Other Skin Diseases ..	78	62	5	67
EAR DISEASE	116	57	32	89
EYE DISEASE				
(External and Other) ..	77	56	8	64
MISCELLANEOUS : ..	121	73	31	104
Totals ..	602	437	80	517

TABLE IVB.

TREATMENT OF VISUAL DEFECTS.

ELEMENTARY SCHOOLS.

Number of Children.									
Referred for refraction.	Submitted to Refraction.				For whom glasses were prescribed.	For whom glasses were provided.	Recommended for treatment other than glasses.	Received other forms of treatment.	For whom no treatment was considered necessary.
	Under Local Education Authority's Scheme Clinic or Hospital.	By Private Practitioner or Hospital.	Other-wise.	Total.					
2183	1558	48	32	1638	1299	1225	153	127	330

SECONDARY SCHOOLS.

Number of Children.									
Referred for refraction.	Submitted to Refraction.				For whom glasses were prescribed.	For whom glasses were provided.	Recommended for treatment other than glasses.	Received other forms of treatment.	For whom no treatment was considered necessary.
	Under Local Education Authority's Scheme Clinic or Hospital.	By Private Practitioner or Hospital.	Other-wise.	Total.					
485	289	55	79	423	335	333	4	3	73

TABLE IVc.

TREATMENT OF DEFECTS OF NOSE AND THROAT

ELEMENTARY SCHOOLS.

Number of Children.				
Referred for Treatment.	Received Operative Treatment.			Received other forms of Treatment.
	Under Local Education Authority's Scheme. Clinic or Hospital.	By Private Practitioner or Hospital.	Total.	
1459	525	130	655	541

TABLE IVc.—(Continued).

SECONDARY SCHOOLS.

Referred for Treatment.	Number of Children.			Received other forms of Treatment.
	Received Operative Treatment.			
	Under Local Education Authority's Scheme. Clinic or Hospital.	By Private Practitioner or Hospital.	Total.	
166	69	32	101	55

TABLE IVd.

TREATMENT OF DENTAL DEFECTS.

1.—NUMBER OF CHILDREN DEALT WITH.

ELEMENTARY SCHOOLS.

	Age Groups.										"Specials" (Casuals).	Total.
	5	6	7	8	9	10	11	12	13			
<i>a</i> Inspected by Dentist	2658	2865	2998	3000	3106	2842	2348	1495	70	—	21372	
<i>b</i> Referred for Treatment ..	2026	2349	2549	2638	2473	2273	1861	1148	49	2803	16766	
<i>c</i> Actually Treated	8185										2802	10988
<i>d</i> Re-treated (result of periodical examination) ..	1571										595	2166

SECONDARY SCHOOLS.

	Age Groups.					"Specials" (Casuals).	Total.
	10	11	12	13	14		
<i>a</i> Inspected by Dentist	80	265	335	206	717	—	1603
<i>b</i> Referred for Treatment ..	45	208	282	189	564	235	1288
<i>c</i> Actually Treated	218x					235	453
<i>d</i> Re-treated (result of periodical examination) ..	135					39	174

x See Dental Report.

TABLE IV.D.

2.—PARTICULARS OF TIME GIVEN AND OPERATIONS UNDERTAKEN. ELEMENTARY SCHOOL APPOINTMENTS.

No. of half-days devoted to Inspection.	No. of half-days devoted to treatment.	Total No. of attendances made by children at the Clinic.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total No. of fillings.	No. of adminis- trations of General Anæsthetics included in 4 & 5.	No. of other operations.	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth	Temporary Teeth.
1	2	3	4	5	6	7	8	9	10	11
		9756	1196	6405	10219	3704	10109	786	1321	1439
Secondary Schools—Appointments.										
		353	173	318	193	10	328	73	69	50
Elementary Schools—Casuals.										
		3398	537	262	3137	248	510	68	442	409
Secondary Schools—Casuals.										
		274	122	43	116	1	44	14	23	19

TABLE IV. E.

(a)	The average number of visits per annum made by the School Nurses to each School	17.3
(b)	Total number of examinations made of children by School Nurses during the year in the Schools.. .. .	99,997
(c)	Number of individual children found unclean	1,854

TABLE V.

SUMMARY OF TREATMENT OF DEFECTS AS SHOWN IN TABLE IV. (A, B, C, D, BUT EXCLUDING E).

ELEMENTARY SCHOOLS.

Defect or Disease.	Number of Children			
	Treated			Total.
	Referred for Treatment.	Under Local Education Authority's Scheme.	Otherwise.	
MINOR AILMENTS	9078	8544	82	8626
VISUAL DEFECTS	2183	2041	80	2121
DEFECTS OF NOSE AND THROAT	1459	1066	130	1196
DENTAL DEFECTS	20169	10988	—	10988
OTHER DEFECTS	2475	1556	473	2029
Totals ..	35364	24195	765	24960

SECONDARY SCHOOLS.

Defect or Disease.	Number of Children			
	Treated			Total.
	Referred for Treatment.	Under Local Education Authority's Scheme.	Otherwise.	
MINOR AILMENTS	602	437	80	517
VISUAL DEFECTS	485	366	134	500
DEFECTS OF NOSE AND THROAT	166	124	32	156
DENTAL DEFECTS	1523	453	—	453
OTHER DEFECTS	398	109	148	257
Totals ..	3174	1489	394	1883

TABLE VI.

SUMMARY RELATING TO CHILDREN MEDICALLY EXAMINED AT THE
ROUTINE INSPECTIONS DURING THE YEAR 1921.

	Elementary Schools	Secondary Schools.
(1) The total number of children medically examined at the routine inspections	12046	3044
(2) The number of children in (1) suffering from Defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treat- ment)	4588	1011
(3) The number of children in (1) suffering from :—		
Malnutrition	406	201
Skin Disease	304	26
Defective Vision (including squint)	1865	598
Eye Disease	79	62
Defective Hearing	53	61
Ear Disease	100	53
Nose and Throat Disease	1996	378
Enlarged Cervical glands (non-tubercular)	140	102
Defective Speech	108	13
Dental Disease	—	—
HEART DISEASE :		
Organic	71	27
Functional	56	37
ANÆMIA	445	134
LUNG DISEASE (non-tubercular)	579	20
TUBERCULOSIS :		
Pulmonary :		
Definite	8	—
Suspected	10	2
Non-Pulmonary	29	18
DISEASE OF NERVOUS SYSTEM	29	34
DEFORMITIES	375	254
OTHER DISEASES AND DEFECTS	939	93
(4) Number of Children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	2442	768
(5) Number of children in (4) who received treat- ment for one or more defects (excluding un- cleanliness, defective clothing, etc.)	2181	690

TABLE VII.—PREVIOUS MEDICAL HISTORY.
ENTRANTS.

Age	...	...	Three Years.				Four Years.				Five Years.				Six Years.				Seven Years.			
Number Examined. Males ... 2001 Females ... 1877 Total... ... 3878			Males, 170.		Females, 180.		Males, 467.		Females, 418.		Males, 859.		Females, 823.		Males, 397.		Females, 349.		Males, 108.		Females, 107.	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Measles	..	..	65	38.2	69	36.7	204	43.7	216	51.7	444	51.7	393	47.8	212	53.4	194	55.6	52	48.1	61	57.0
Whooping Cough			28	16.5	50	27.8	109	23.3	112	26.8	219	25.5	243	29.5	110	27.7	120	34.4	29	26.9	54	50.5
Scarlet Fever	..	..	3	1.8	1	.6	6	1.3	7	1.2	18	2.1	17	2.1	16	4.0	14	4.0	3	2.8	5	4.7
Diphtheria	..	..	1	.6	2	1.1	6	1.3	7	1.2	13	1.5	15	1.8	8	2.0	3	0.9	2	1.9	17	15.9
Mumps	..	..	6	3.5	4	2.2	15	3.2	12	2.9	45	5.2	45	5.5	26	6.5	24	6.9	5	4.6	16	14.9
Chicken Pox	..	..	21	12.4	29	16.1	65	13.9	75	18.0	142	16.5	160	19.4	76	19.1	79	22.6	18	16.7	28	26.2
Vaccinia	..	..	37	21.8	41	22.8	109	23.3	110	26.3	196	22.8	167	20.3	93	23.4	88	25.2	24	22.2	34	31.8
Typhoid Fever	..	..	1	0.6	2	1.1	—	—	1	0.2	5	0.6	3	0.4	2	0.5	—	—	2	1.9	—	—
Pneumonia	..	..	7	4.1	9	5.0	29	6.2	36	8.6	56	6.5	39	4.8	21	5.3	25	7.2	5	4.6	11	10.3
Bronchitis..	..	..	21	12.4	14	7.8	58	12.4	59	14.1	99	11.5	79	9.6	42	10.6	36	10.3	7	6.5	15	14.0
Rheumatism	..	..	—	—	1	0.6	—	—	3	0.7	3	0.4	2	0.2	3	0.8	3	0.9	1	0.9	4	3.7
Tuberculosis	..	..	—	—	—	—	—	—	—	—	1	0.1	1	0.1	1	0.3	—	—	—	—	—	—

TABLE VIII.—AVERAGE HEIGHTS AND WEIGHTS.

Age.	Total Number Examined.		Leavers and Intermediate Groups.						Scholarship Candidates.						Secondary School Children.			
			Males			Females			Males			Females			Males		Females	
	Males		Females		Males		Females		Males		Females		Males		Females			
	Height C. M.	Weight Kilos.	Height C. M.	Weight Kilos.	Height C. M.	Weight Kilos.	Height C. M.	Weight Kilos.	Height ft. ins.	Weight sts. lbs.	Height ft. ins.	Weight sts. lbs.	Height ft. ins.	Weight sts. lbs.	Height ft. ins.	Weight sts. lbs.		
8	1914	1957	120	24	122	22.7	—	—	—	—	—	—	—	—	—	—		
9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
10	319	261	—	—	—	—	133	29.1	132.8	28.1	—	—	—	—	—	—		
11	287	252	133.3	28.8	—	—	135.4	30.6	135.2	25.8	4 5½	4 12¾	4 6¾	5 6½	—	—		
12	1535	1765	137.0	33.0	139.8	34.0	141.2	33.8	146.6	33.1	4 8¾	5 2½	4 9	5 3½	—	—		
13	752	781	142.5	35.5	142.7	36.3	—	—	—	—	4 10	5 1½	4 9¾	6 4	—	—		
14	358	343	148.2	40.4	145.0	37.0	—	—	—	—	4 11¾	6 5¼	5 0¾	6 10½	—	—		
15	196	155	—	—	—	—	—	—	—	—	5 3½	7 1¾	5 2¼	7 4¾	—	—		
16	84	120	—	—	—	—	—	—	—	—	5 5½	8 8½	5 3	7 10¾	—	—		
17 and over	45	88	—	—	—	—	—	—	—	—	6 6¾	8 11	5 3	8 2¾	—	—		

TABLE IX.
AVERAGE HEIGHTS AND WEIGHTS.
ENTRANTS.

Number Examined.			Entrants.			
Age.	Males.	Females.	Males.		Females.	
			Height. C.M.	Weight. Kilos.	Height. C.M.	Weight. Kilos.
3	170	180	93·2	15·6	101·2	14·8
4	467	418	97·3	16·1	98·1	16·2
5	859	823	104·2	18·4	104·4	17·1
6	397	349	106·2	19·2	107·5	18·6
7	108	107	115·7	20·2	113·0	19·9

TABLE X.
PARENTS PRESENT AT MEDICAL INSPECTIONS.

Group.	Males.			Females.		
	Number of Children Examined.	Number of Parents Present.	Percentage of Parents Present.	Number of Children Examined.	Number of Parents Present.	Percentage of Parents Present.
Entrants	2001	1275	63·7	1877	1286	68·5
Intermediates ..	1914	909	47·5	1957	1107	56·5
Leavers	1449	404	27·8	1598	660	41·3
Scholarships ..	675	161	23·9	575	303	52·7
Secondary Schools	1452	6	·4	1592	513	32·2
Total ..	7491	2755	36·8	7599	3869	50·9

TABLE XI.—Vision.

	Leavers.				Intermediates.				Secondary School Scholars.				Scholarship Candidates.				Totals.			
	Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.	Girls.	Totals.	%
		%		%		%		%		%		%		%						
No. tested	1449	1597	3046	—	1839	1947	3786	—	1407	1549	2956	—	675	568	1243	—	5370	5661	11031	—
6/6 both eyes normal	633	662	1259	41.3	764	754	1518	40.1	915	936	1851	62.6	407	371	778	62.6	2719	2723	5442	49.3
6/6 Right	108	87	195	6.4	110	95	205	5.4	90	83	173	5.8	54	36	90	7.2	1362	301	663	6.0
6/6 Left	64	76	140	4.6	76	60	136	3.6	82	70	152	5.1	47	30	77	6.2	269	236	505	4.6
6/9 Right	422	482	904	29.6	583	688	1271	33.6	153	258	411	13.8	109	83	192	15.4	1267	1511	2778	25.2
6/9 Left	426	477	903	29.6	587	671	1258	33.2	145	267	412	13.8	111	85	196	15.8	1269	1500	2769	25.2
6/12 Right	141	153	294	9.6	178	225	403	10.6	62	70	132	4.4	46	41	87	7.0	427	489	916	8.3
6/12 Left	159	189	348	11.4	205	237	442	11.7	68	85	153	5.1	56	39	95	7.6	488	550	1038	9.4
6/18 Right	63	115	178	5.8	127	115	242	6.4	59	58	117	4.9	32	14	46	3.7	281	302	583	5.3
6/18 Left	68	102	170	5.6	113	133	246	6.4	63	57	120	4.1	25	17	42	3.4	269	309	578	5.3
6/24 Right	46	45	91	3.0	40	37	77	2.0	37	50	87	2.9	10	9	19	1.5	133	141	274	2.5
6/24 Left	39	47	86	2.8	53	46	99	2.6	38	43	81	2.7	12	13	25	2.0	142	149	291	2.6
6/36 Right	22	39	61	2.0	30	30	60	1.6	59	50	109	3.7	13	9	22	1.8	124	128	252	2.3
6/36 Left	43	28	71	2.3	35	38	73	1.9	58	51	109	3.7	9	9	18	1.4	145	126	271	2.5
6/60 Right	11	9	20	0.7	5	3	8	0.2	32	28	60	2.0	4	4	8	0.6	52	44	96	0.9
6/60 Left	8	13	21	0.7	2	5	7	0.2	36	26	62	2.1	6	4	10	0.8	52	48	100	1.0
6/0 Right	3	6	9	0.3	2	0	2	0.1	0	16	16	0.5	0	1	1	0.1	5	23	28	0.3
6/0 Left	9	4	13	0.4	4	3	7	0.2	2	14	16	0.5	2	0	2	0.2	17	21	38	0.3

TABLE XII.
NURSERY SCHOOLS.

Defect or Disease	Number of Defects.		Number of Defects treated under this Authority's Scheme.		Result of Treatment.					
					Remedied.		Improved.		Unchanged (to continue treatment).	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Nutrition (below normal)	8	10								
Cleanliness of Head ..	3	5	2	3	2	3				
Ear Disease	10	6	10	5	9	4	—	—	1	1
External Eye Disease ..	10	12	9	8	7	7	1	—	1	1
Nose and Throat—										
Mouth Breathers ..	5	7	—							
Tonsils (slight) ..	17	8	2	—	—	—	1	—	1	—
Tonsils (much enlarged)	11	11	—							
Adenoids (slight) ..	12	6	1	—	—	—	1	—	—	—
Adenoids (much) ..	5	5	—				—	—	—	—
Other diseases	6	2	3	2	3	2	—	—	—	—
Cervical Glands (non T.B.)	5	3	1	—	1	—	—	—	—	—
Lungs (bronchitis) ..	18	15	18	15	3	—	15	15	—	—
Heart Disease	5	1	3	1	—	—	3	1	—	—
Abdomen	—	—	—	—	—	—	—	—	—	—
Skin—										
Ringworm of Head ..	17	8	17	8	10	6	2	—	5	2
Ringworm of Body ..	4	4	4	4	4	4	—	—	—	—
Impetigo	15	10	15	10	15	10				
Other Diseases ..	9	5	7	5	6	5	1	—	—	—
Bone and Joint Diseases (Non T.B.)—										
Deformities—										
Rickets	40	24	40	24	—	—	40	24	—	—
Spinal Curvature ..	—	1	—	1	—	—	—	1	—	—
Other Forms	4	1	—	1	—	—	—	1	—	—
Miscellaneous	8	8	5	5	3	3	2	1	—	1
Totals ..	212	152	137	92	63	44	66	43	8	5

INDEX

	PAGE		PAGE
Acreage	5	Fish Curing Premises	36
Ambulance Work and Disinfection	111	Food, Inspection of	30-36
Antenatal Work	74	Fried Fish Shops	26
Anthrax	43	Grassington Sanatorium	49
Anti-Tuberculosis Centre.. .. .	46	Heart Disease	62
Bacteriological and Pathological		Hospital Accommodation	89
Work	85	Housing	107-110
Bierley Hall Sanatorium.. .. .	54	Housing Statistics	110
Births	6	Ice Cream Makers	36
Births in Wards	7	Illegitimacy	6, 64
Birth Rates in Wards	7	Infancy	77
Births, Registration and Notifi-		Infantile Mortality	63-71
cation of	77	Infantile Mortality, Age Distribu-	
Births, Visitation of	78	tion of	63
Blind, Deaf, Defective and		Infantile Mortality and Illegiti-	
Epileptic Children	130	macy	64
Board of Education Tables	120-150	Infantile Mortality, Place Distri-	
Bronchitis	61	bution of	65
Canal Boats	25	Infantile Mortality, Causes of	
Cancer and Malignant Disease ..	60	Death in	66
Cerebro Spinal Fever	62	Infantile Mortality, Comparison	
Cinemas and other places of		with other Great Towns ..	67
Entertainment	29	Infant Clinics and Centres	80
Closet Accommodation and		Infants' Hospital	82
Scavenging	14	Infectious Diseases	36
Common Lodging Houses	24	Infectious Diseases Hospitals ..	100
Cowsheds	30	Influenza	43
Crematorium	111	Inquests	12
Dairy Farms	30	Leeds Road Hospital	100
Deaf School	130	Lister Lane School for Physical	
Deaths	6	Defectives	130
Deaths at Different Age Periods	8	Maternity and Child Welfare	63-85
Death Rates in Wards	7	Maternity and Child Welfare,	
Deaths in Public Institutions ..	10	voluntary work in connection	
Deaths, Certification of	11	with	85
Dental Treatment of School		Maternity Cases, Accommodation	
Children	127	for	76
Diarrhœa	40	Maternity	72
Diphtheria	37	Measles	43
Disinfection	111	Meat Inspection	34
Drainage and Sewerage	14	Medical Inspection of School	
Early Childhood	82-85	Children	120
Encephalitis Lethargica	62	Medical Treatment of School	
Enteric Fever	38	Children	122
Erysipelas	43	Mentally Defective School ..	132
Factory and Workshop Acts,		Midwives, Supervision of ..	72
1901	19-22	Milk Supply	30

INDEX—(Con.)

	PAGE
Milk Shops, Dairies, and Purveyors	
of Milk	31
Milk, Chemical Examination of	31
Milk and Cream Regulations 1912	
and 1917	33
Municipal Midwives	74
Municipal Maternity Hospital ..	76
Municipal General Hospital	89-99
Municipal Milk Depot	33
Myope School	130
New Buildings	108
Nursery Schools	132, 150
Odsal Hospital	55
Odsal House Blind School ..	130
Offensive Trades, etc.	26
Open-Air Education of School	
Children	129
Ophthalmia Neonatorum ..	106
Ophthalmic Treatment of School	
Children	128
Organic Heart Disease	62
Other forms of Tuberculosis ..	46
Overcrowding	109
Pathological Work	85
Polio-Encephalitis, Acute ..	62
Poor Law Relief	9
Population	5
Population, Distribution and	
Density of	5
Pre-School Centre	83
Prevalence and Control of Disease	36
Public Mortuary	111
Puerperal Fever	42
Pulmonary Tuberculosis	45
Rag Flock Act, 1911, etc. ..	24
Rats and Mice (Destruction) Act,	
1919	29

	PAGE
Report of School Medical Officer	120
Respiratory Diseases	61
Rheumatic Fever	62
Sale of Food and Drugs Acts ..	36
Sanitary Circumstances of Brad-	
ford	14-29
Sanitary Inspection of District	16
Scarlet Fever	38
School Medical Officer's Report..	120
Schools, Sanitary Inspection of..	26
School Statistics	133
Shop Acts 1912, 1913, and 1920	22
Slaughterhouses	34
Smallpox	39
Smoke Inspection	26
Special Hospital Accommodation	106
Stammering Classes	131
Still Births	75
Throat, Nose, Ear, and other Eye	
Cases	106
Tuberculosis	44
Tuberculosis Dispensary	46
Tuberculosis, Other Forms of ..	46
Usher Street Myope School ..	130
Venereal Diseases	56
Violence	62
Visitation and other Work ..	84
Vital Statistics	13
Voluntary Hospitals	9
Water Supply	14
Whooping Cough	43
Workshop and Shop Inspection,	
etc.	19
X-ray Treatment of School	
Children	127
Young Children, Death Rate	
Among	82



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